ESCIENT

FireBall™

SE-80 DIGITAL MUSIC MANAGER
START UP GUIDE

gracenote cddb

P/N: M32001-01A1

THANK YOU

The team at Escient would like to take this opportunity to thank you for purchasing an Escient FireBall product. Escient is committed to providing our customers the most technologically advanced, yet easier-than-ever to use products that converge the power of the Internet with home entertainment.

To maximize your enjoyment, please take a few minutes to review this Start Up Guide. It will guide you through all the features and benefits of your new FireBall.

If you should need assistance please call our Customer Support Staff at 800.372.4368

INTRODUCTION

This FireBall Manual is intended to provide the reader with an overview of the main features and benefits of the Escient FireBall Music Management System. For more detailed instruction and technical information, please refer to the Support section of the Escient web site (www.escient.com/support).

DISCLAIMER

At the time of printing, the FireBall screenshot images in this manual matched the FireBall interface screens. However, since FireBall has the capability of downloading software updates and enhancements on a regular basis, the resulting screen updates may no longer match the images in this manual.

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WARNINGS AND PRECAUTIONS

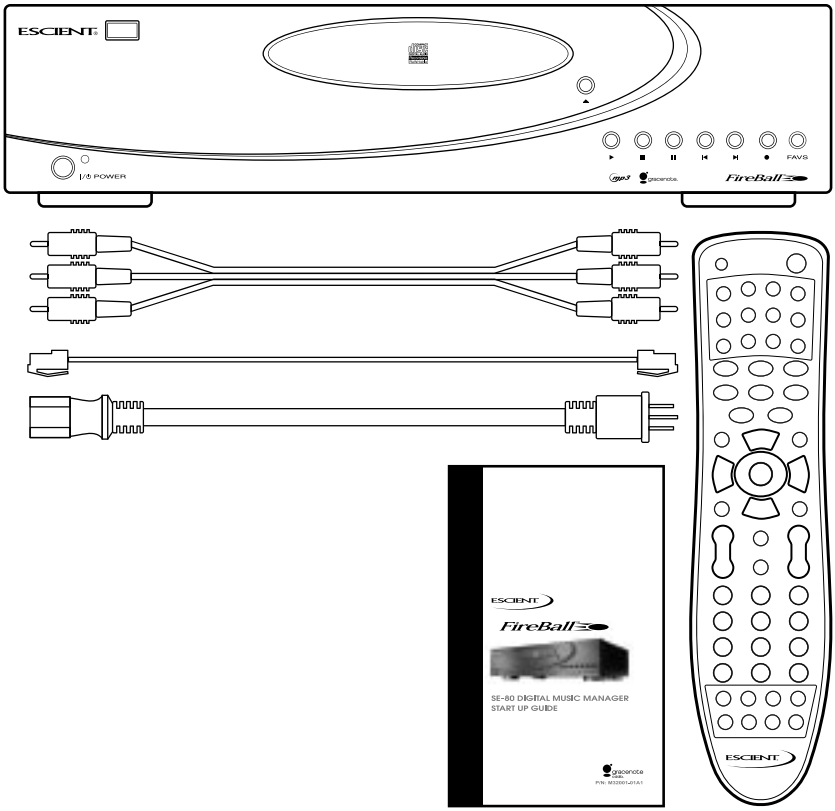
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer servicing to qualified service personnel.
- To prevent electric shock, do not use a 3 wire to 2 wire adapter plug.
- A three prong grounded outlet is required.
- You are cautioned that any change or modification not expressly approved in this manual or approved in writing by an authorized representative of Escient could void your warranty and/or your authority to operate this equipment.
- Prolonged use of any video device which produces a static (non-moving, non-changing) or repetitive image on your projector, television or plasma display device can cause “screen burn-in”. You are encouraged to leave the FireBall screen-saver turned on and set to the lowest possible “time-out” duration. Warning: This device uses the mains plug as the means to disconnect the unit, this unit remains powered unless disconnected from the mains source.

INSTALLATION

1)Unpack the FireBall, cables, and accessories. Install the included batteries into the remote. Write down the FireBall serial number (located on the back) here:

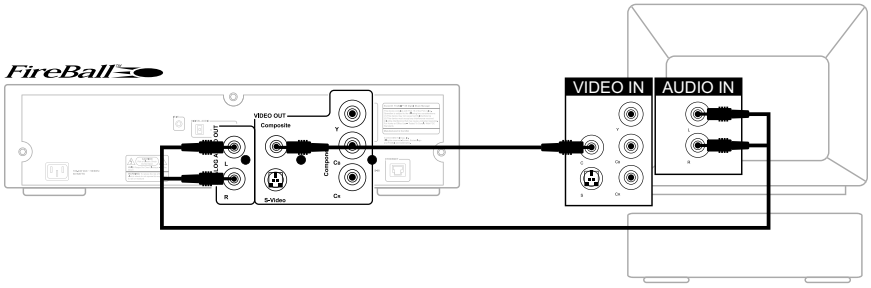
SERIAL NUMBER: _____

CONTENTS
FireBall
IR Remote Control (batteries included)
Analog Audio/Composite Video Cable (red, white, and yellow)
Ethernet Cable
Power Cable
Start Up Guide

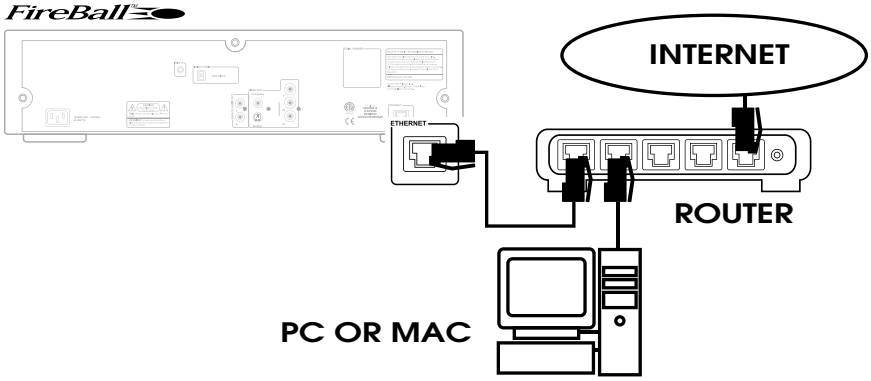


2)Connect FireBall to your A/V Receiver and TV
A)Locate the included Analog Audio/Composite Video Cable.
B)Connect FireBall to any available A/V input on your receiver or TV

Note: You may use optional s-video or component video cables and optional digital audio cables for the best picture and sound quality. Contact your Escient dealer for more information

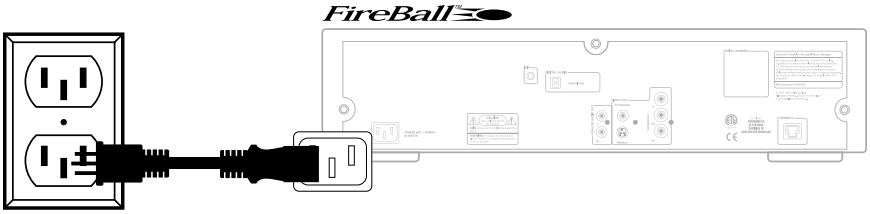


3)Connect FireBall to your network using the included Ethernet cable.



4)Connect FireBall to an AC outlet using the included power cord.

Note: The power LED on the front of the FireBall will begin to flash. The power LED will turn solid RED once the FireBalll has completed its initialization process indicating the unit is in standby.



5)Press the POWER button on the front panel or on the remote control. The LED will turn solid BLUE and video will be displayed on the TV when the unit is on. Follow the instructions on the screen to complete the setup procedure.

REMOTE CONTROL

CODE SET
Code Set - used to set the universal IR source buttons. See manual for details.

UNIVERSAL SOURCE SELECT
TV / Cable / Receiver / DVD - used to configure the remote to control other devices. See manual for details on the universal remote functions.

MODE GUIDE SELECT
Movies / iRadio / Music - used to select FireBall modes.

TRANSPORT CONTROLS
Rewind / Play / Forward / Record / Stop / Pause - used to control playback of movies and music. Also used for text entry and for canceling certain operations.

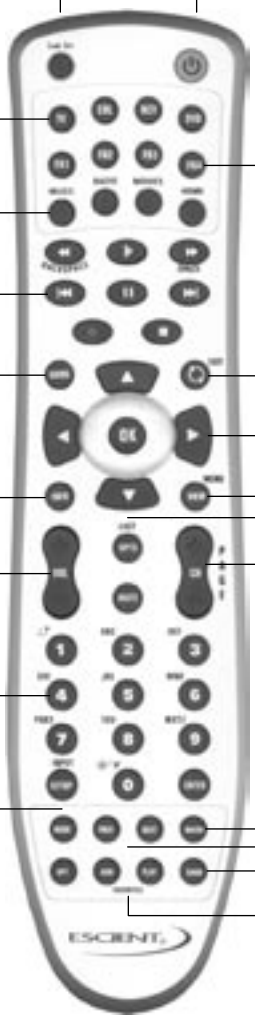
GUIDE
Guide / Player - toggles between Guide and Player screens.

INFO
Info - displays additional movie and music info

VOLUME CONTROL
Volume Up / Volume Down / Mute - Universal remote can be configured to operate volume on TVs and receivers. See manual for detailed setup steps.

KEY PAD
Alpha / Numeric / Enter - used for entering numbers and text. Also used for searching in the movies, music and radio guides.

CONTROL
Mode - changes music play modes: normal, random, repeat etc.
Setup - displays Setup menu.



POWER
Power - used to toggle the current source device on and off.

FIREBALL SELECT
FireBall 1 / FireBall 2 / FireBall 3 / FireBall 4 - use FB1 to control the FireBall. Use other FB buttons if additional FireBall products are installed.

ALL / NONE
Toggle ALL or NONE on Select Guides.

NAVIGATION & SELECT
Up / Down / Left / Right / Select - used to navigate and select on-screen menus and buttons.

VIEW / MENU
View / Menu - toggles through various Guide Views (artist, title, cover).

CONTROL
Options - displays Options menu.

CHANNEL / PAGE CONTROL
Channel/Page Up/Down - used to page up and down in Guide and Player screens.

MACRO FUNCTION
Macro Function - used to directly access various music, movie and radio items and controls.

DISC PLAY FUNCTIONS
Previous / Next - skip disc functions.

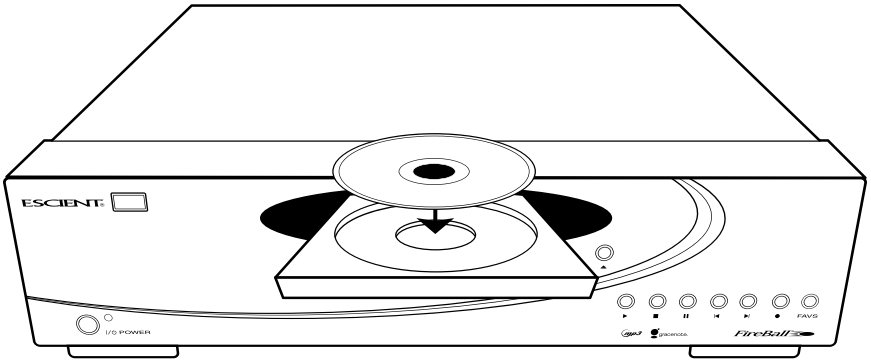
MUSIC PLAY FUNCTIONS
Repeat / Random - used to cause the system to play the current group/genre in repeat or random playback mode.

MUSIC FAVORITES
Add-Favorites / Play-Favorites - used to add the currently highlighted music track to the Favorites playlist and to play the favorites playlist.

MUSIC MANAGEMENT

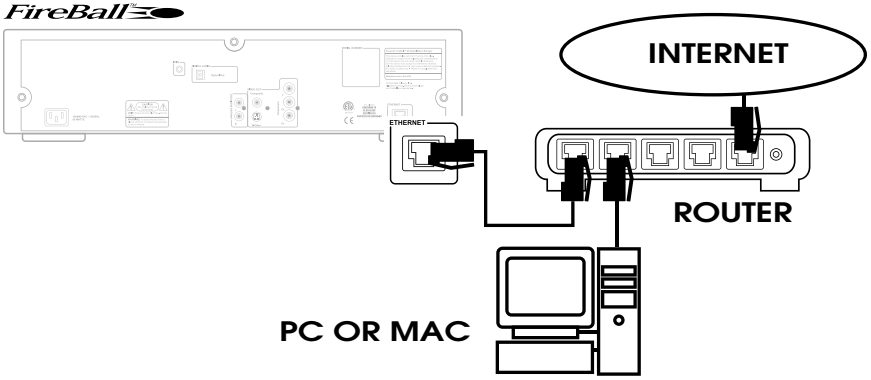
Recording Using the Internal CD Drive

Insert a CD into the internal CD drive, press the **RECORD** button, and follow the instructions on screen.



Importing Music Files

Transfer music files from a Windows XP PC or Mac OS X computer into your FireBall over the network. Make sure the music files are MP3 format with ID3v2.3 tags or WMA format with ASF tags. Replace **MyFireBall** with the name of your FireBall or it's IP address. Name your FireBall using the **SETUP/Network/Server Settings Menu.** Connect to your FireBall just as if it were another PC by selecting "Run" from the Start Menu and entering \\FireBall Name or IP address.



Browsing the Music Library

Use the Music Guide to browse your Music Library. Press the **LEFT** or **RIGHT** arrow buttons on the remote control to change Genres or view All of your Music in one list. Press **UP** or **DOWN** buttons to highlight any Album or Song in the list. Use the **PAGE UP** or **DOWN** buttons to advance through all your music. Press **SELECT** to expand the highlighted Album or press **PLAY** to play the Album or Song.

Use the **VIEW** button to view the Music Library alphabetically by Album Title, Artist Name, Song Name, or Album Cover Art.

Playing Music

The currently playing Album, Artist, Song, and Cover Art appear in the Music Player screen. Use the Up and Down buttons to highlight a different song. Press **SELECT** to play the highlighted song. Press the **GUIDE** button to return to the Music Guide.

Music Options

Press the **OPTIONS** button to edit and manage your music collection. The Options menu allows you to create, edit, and delete Groups, Playlists, and Music files. You can also change the current play mode and change other options for the music source.

INTERNET RADIO

Browsing Internet Radio Stations

Use the Radio Guide to browse your Internet Radio Stations. Press the **RADIO** button to access the Internet Radio Guide (press the **MUSIC** button to return to the Music Guide). Press the **LEFT** or **RIGHT** arrow buttons on the remote control to change Genres or view All of your Stations in one list. Press the **UP** or **DOWN** buttons to highlight any station in the list. Press **PLAY** to connect to and start playing the station.

Playing an Internet Radio Station

The currently playing Radio Station appears in the Radio Player screen. Press the **GUIDE** button to return to the Radio Guide.

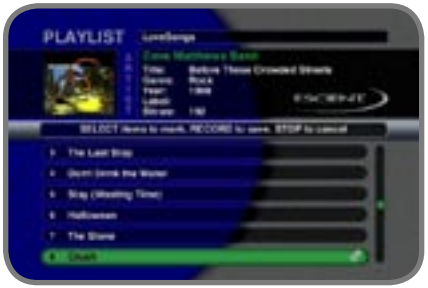
Radio Options

Press the **OPTIONS** button to edit and manage your Internet Radio stations. The Options menu allows you to create, edit, and delete Groups and Radio stations.

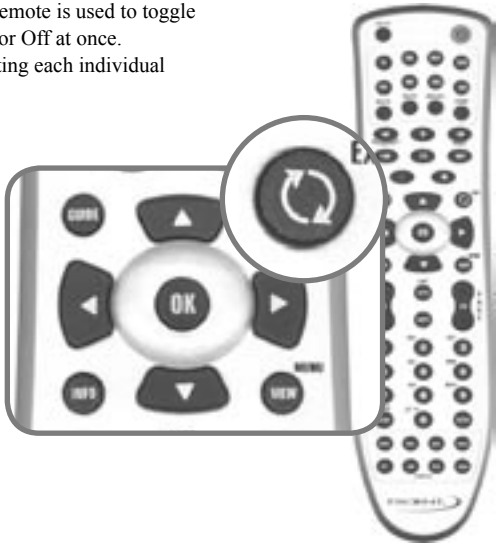
SELECT GUIDES

Select Guides are the special Guide screens used when creating and editing custom Groups and Playlists, when making selections for Recording, and when deleting music. They are used to browse library content just like the regular Guide screens, however, instead of playing the selected item, the item is marked to indicate that it is "selected".

All selected items in the current Select Guide are added to the current Group, Playlist, Record selection, or Delete Selection when you press the **RECORD** button to save the Selection.



The **TOGGLE** button on the remote is used to toggle all items in the current list On or Off at once. This saves the trouble of selecting each individual track.



SETTING USER PREFERENCES

User preferences are available to specify global configuration options and preferred system settings. Press the **SETUP** key on the remote control to display the Setup Menu. Use the navigation keys on the remote control (up, down, left, and right) to highlight and select any menu item to display a Setup screen.

Additional information is available on each Setup screen by selecting the HELP button.

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WARRANTY INFORMATION

Terms of Coverage

Each Escient branded media management system sold comes with a standard one (1) year warranty. This warranty provides no-charge coverage under normal product usage, for a period of one year from the date of registration and/or purchase (whichever is earlier). This warranty program provides the following key features and benefits:

- Twelve (12) months service, parts and labor.
- Five (5) day turn around time on all standard in-warranty repairs. No charges to the customer other than in-bound shipping charges which are determined by the shipping method. All return shipments will be via Standard Ground Transportation (approximately 5 business days).
- Twelve (12) months of regular hour telephone support (9AM to 7PM EST), Monday through Friday.
- 24-hour email response from the Escient Support Website.
- Software maintenance updates provided via a broadband Internet connections.
- Access to 24-hour music and movie databases and entertainment services providing access to thousands of CD titles and associated information.

What is Covered

The goal of this warranty is to cover operational problems that might arise with your product during normal use. This includes failure to start, improper operation, or intermittent failures. As part of the warranty, Escient will pay for all labor and materials used in the repair of the system. Escient reserves the right to use new or factory refurbished parts in the repair of these in-warranty systems. Escient will also pay for the return shipment of the repaired system via standard ground transportation. At Escient's discretion, the Company will repair or replace any system sent in for repair. Upon repair, the product will be new or like-new in condition and will meet all necessary regulatory requirements.

What is Not Covered

Escient products are sold through Escient approved dealers. A number of items must remain intact in order for Escient to verify and validate this warranty. Additionally, there are several conditions which violate Escient's warranty program. These include:

- The product was not purchased through an approved Escient Dealer.
- Any product, on which the serial numbers has been defaced, modified or removed physically or electronically will not be covered by an Escient warranty.
- Escient will not cover under warranty damage to the product as a result of accident, misuse, abuse, neglect, fire, water, lightning, or other acts of God or nature, improper storage, unauthorized modification, or failure to follow instructions.
- Any type of unauthorized repair or modifications made to the system resulting in damage to the product will not be covered under this warranty.
- Damage caused to the product as a result of improper shipping or installation.
- Any problems related to the use of the product which is not a direct problem with the product.
- Damage caused to the product as a result of improper installation to third party peripherals or products, or incorrect connection to peripheral or products.

- Additionally, Escient does not cover the following items under the terms or its warranty programs:
  - Installation or removal charges.
  - Cost of initial technical adjustments (setup costs).
  - Battery replacement

Escient's sole liability for any defective product is limited to the repair or replacement of the product at our discretion. Escient shall not be liable for damages to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time or data, commercial loss or any other damages, whether real, incidental or consequential.

Escient shall not be liable for damage or loss of data including but not limited to music recorded to storage devices. It is the customer's responsibility to maintain the original media and/or appropriate backup copies within the specific rights of the media's copyright holder.

How to Return a Product

Contact your dealer or Escient's Customer Support group at 317-616-6789 or 800-372-4368 (U.S. only). Please have the following information ready for your dealer or Escient's Customer Support technician:

- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

Upon reviewing the request for repair under warranty provisions, Escient's Technical Support group will issue a Return Material Authorization (RMA) number. This number is to be attached to the outside of the shipping carton. Additional instructions will be provided by technical support. Please be sure to use original packing carton and internal packing materials to assure proper shipment of the system. Insurance costs are the responsibility of the customer. Most shippers only provide standard coverage for $100 in cost so please protect yourself by providing additional insurance for the returned product.

Out of Warranty Repair

Escient provides out of warranty repair service on a cost plus labor basis. Minimum charges will apply. Technical support will provide information on this service at the time of the call.

ESCIENT®

FireBall™

SE MUSIC MANAGER USER'S MANUAL

P/N: 0905

gracenote cddb®

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The Escient Team

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PRODUCT INTRODUCTION

Thank you for purchasing the FireBall SE-80, the next generation media management system from Escient (A division of Digital Networks North America).

ABOUT THIS MANUAL

This FireBall SE-80 User Manual is intended to provide the reader with an overview of the main features and benefits of the Escient FireBall SE-80 Music Management System. For more technical information, please refer to the FireBall SE-80 Advanced User's Guide available on the Escient web site (www.escient.com) or from your Escient dealer.

RECORD YOUR SERIAL NUMBER

The serial number for this unit is located at the rear of the device. Please record the serial number in the space provided below. Refer to it whenever you call Escient Tech Support regarding this product.

FireBall Serial Number: _____

MANUAL DISCLAIMERS

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- To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer servicing to qualified service personnel.
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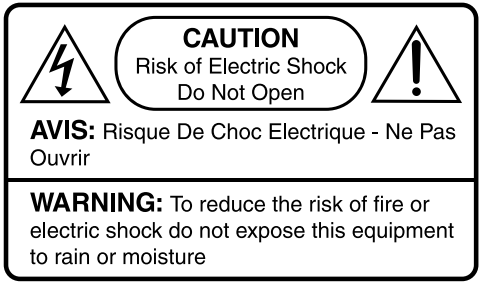
CAUTION
Risk of Electric Shock
Do Not Open
AVIS: Risque De Choc Electrique - Ne Pas Ouvrir
WARNING: To reduce the risk of fire or electric shock do not expose this equipment to rain or moisture

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WARRANTY INFORMATION

Terms of Coverage - Each Escient branded media management system sold comes with a standard one (1) year warranty. This warranty provides no-charge coverage under normal product usage, for a period of one year from the date of registration and/or purchase (whichever is earlier). This warranty program provides the following key features and benefits:

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- 24-hour email response from the Escient Support Website.
- Software maintenance updates provided via a broadband or dial-up Internet connections.
- Access to 24-hour music and movie databases and entertainment services providing access to thousands of CD and DVD titles and associated information.

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- The product was not purchased through an approved Escient Dealer.
- Any product, on which the serial numbers has been defaced, modified or removed physically or electronically will not be covered by an Escient warranty.
- Escient will not cover under warranty damage to the product as a result of accident, misuse, abuse, neglect, fire, water, lightning, or other acts of God or nature, improper storage, unauthorized modification, or failure to follow instructions.

- Any type of unauthorized repair or modifications made to the system resulting in damage to the product will not be covered under this warranty.
- Damage caused to the product as a result of improper shipping or installation.
- Any problems related to the use of the product which is not a direct problem with the product.
- Damage caused to the product as a result of improper installation to third party peripherals or products, or incorrect connection to peripheral or products.
- Additionally, Escient does not cover the following items under the terms or its warranty programs:
- Installation or removal charges.
- Cost of initial technical adjustments (setup costs).
- Battery replacement.

Escient's sole liability for any defective product is limited to the repair or replacement of the product at our discretion. Escient shall not be liable for damages to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time or data, commercial loss or any other damages, whether real, incidental or consequential.

Escient shall not be liable for damage or loss of data including but not limited to music recorded to storage devices. It is the customer's responsibility to maintain the original media and/or appropriate backup copies within the specific rights of the media's copyright holder.

How to Return a Product - Contact your dealer or Escient's Customer Support group at 800-372-4368.

Please have the following information ready for your dealer or Escient's Customer Support technician:

- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

Upon reviewing the request for repair under warranty provisions, Escient's Technical Support group will issue a Return Material Authorization (RMA) number. This number is to be attached to the outside of the shipping carton. Additional instructions will be provided by technical support. Please be sure to use original packing carton and internal packing materials to assure proper shipment of the system. Insurance costs are the responsibility of the

customer. Most shippers only provide standard coverage for $100 in cost so please protect yourself by providing additional insurance for the returned product.

Out of Warranty Repair - Escient provides out of warranty repair service on a cost plus labor basis. Minimum charges will apply. Technical support will provide information on this service at the time of the call.

ESCIENT PRIVACY POLICY

Escient is committed to providing you with a product that you enjoy and are confident in using, and are committed to providing services in a private and secure environment.

We recognize and respect each individual user's privacy and have created this Privacy Policy to demonstrate our commitment to your privacy.

We want you to be fully informed about the information that we collect, why we collect it, and with whom we share it.

It is our hope that, after reading this notice, you will understand our commitment to privacy and be confident that we will use your information responsibly. By using the Escient FireBall SE-80, you are accepting the practices described in this Privacy Policy.

The option to read the Escient Privacy Policy appears on the zip code screen of the Quick Start automatic setup procedure. In addition, you can access the statement at any time by pressing the **SETUP** key and choosing the option: user information, privacy policy.

CONTACT INFORMATION

Escient may be contacted by using the following information. Once you have worked with your local Escient dealer, we encourage you to contact us if you are in need of any further assistance.

Escient
6325 Digital Way
Indianapolis, Indiana 46278
www.escient.com

Phone: 800-372-4368 Press "2" for Sales, or "3" for Support
Fax: 317-616-6790
E-mail: support@escient.com
Hours: Monday - Friday 9:00am - 7pm EST

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TERMS AND DEFINITIONS

Following are terms used throughout this manual:

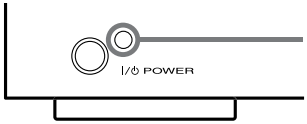
- **Button -** refers to a graphic item on the display screen.
- **Group -** a collection of similar music titles. Standard genre groups are provided and custom groups can be created by the user.
- **Highlight -** highlighting is used to indicate the user's selection on screen. When the selection moves up, down, left, or right, the highlight moves to the next nearest item. No action is taken (except that more information may be displayed on the screen) until the Select key is pressed.
- **Info Text Area -** the portion of the guide screen used to display information about the highlighted title.
- **Playlist -** a collection of one or more music tracks or songs.
- **Title -** a collection of music tracks commonly referred to as a CD, Album or Playlist.
- **Key -** refers to one of the buttons on your remote or keyboard.
- **MP3 -** a compressed digital audio format. MP3 files are smaller than the original CD tracks and sound almost identical.
- **Guide -** a grid or list of information, used to browse your media library.
- **Player -** the screen used to display the currently playing media.

SETUP

This manual assumes that you followed the printed “Start Up Guide” guide that came with your FireBall. If you have not properly connected your FireBall to your audio/video system, please go back and follow the “Start Up Guide” guide before continuing with this User Manual.

POWER STATES

After the FireBall SE-80 unit is plugged in, the Standby LED located next to the power button will flash red until the startup process is complete. **Please wait. This may take several minutes.**



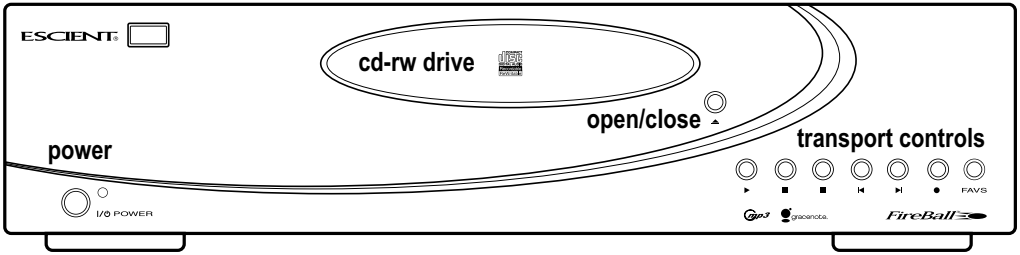
When the Standby LED is solid RED, the FireBall is now in a standby or "sleep" mode. There is no video output when FireBall is in standby mode. Press the Power button (on the front panel or on the remote) once and the video output is displayed on your TV. The unit is now ON and the LED will be solid blue.

To change from the ON mode back to the standby or "sleep" mode, press the Power button on the front panel or on the remote once. The video output will go blank and the LED will be solid red.

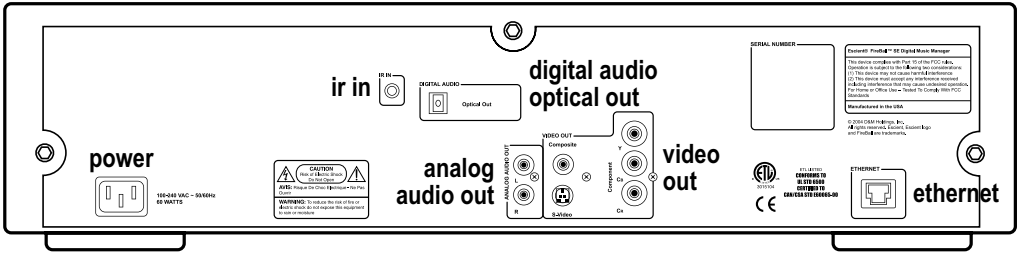
If power is removed from FireBall for any reason, including a power outage or if the unit is unplugged, FireBall will automatically return to the Standby state as soon as power is restored. When FireBall is turned on again, FireBall will return to the same source mode that it was in when power was lost.

To force the FireBall to restart, PRESS and HOLD the Power button for 4 seconds, and release it when the standby LED starts blinking. When the Standby LED is RED and FireBall SE-80 has completed its startup process, press the Power button once to turn on the FireBall SE-80.

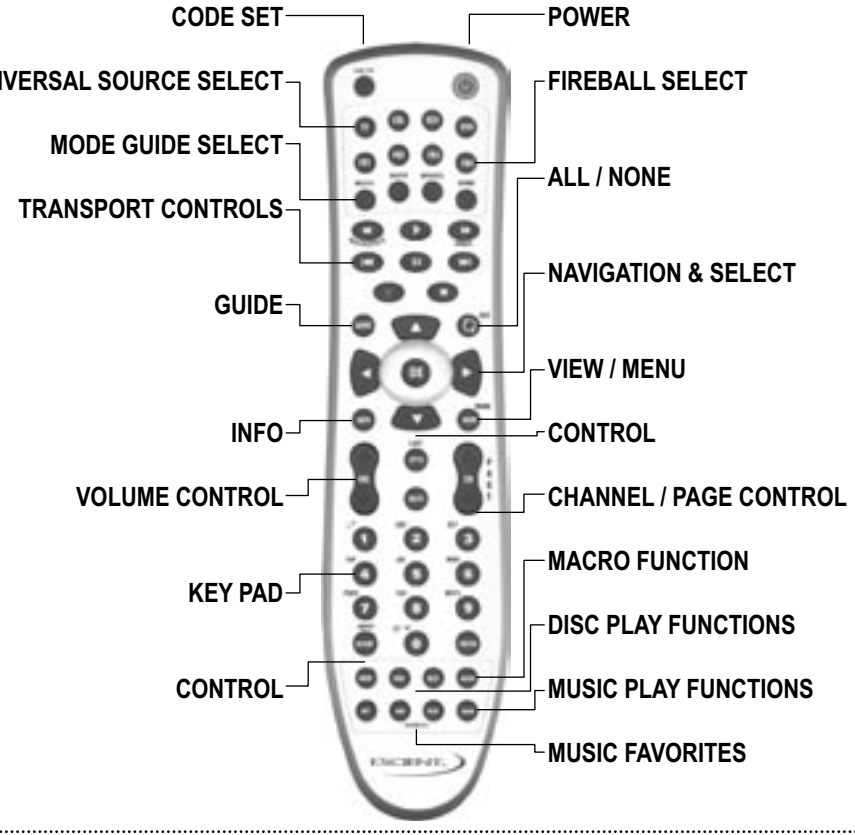
FRONT PANEL OVERVIEW



REAR PANEL OVERVIEW

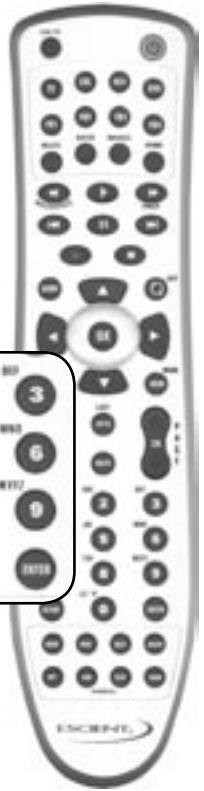


REMOTE CONTROL OVERVIEW



ENTERING TEXT WITH THE REMOTE CONTROL

The remote control can be used to enter text in all text fields. This text entry capability is provided to allow you to fill out short text fields – such as those that occur in the setup and edit screens. FireBall SE-80's wireless keyboard should be used when extended typing is required.



Entering Numeric Entry Mode

In fields where FireBall SE-80 expects only numeric characters to be entered (such as phone number fields), an indicator will appear on the screen that displays the letters "123" indicating that only numbers can be entered.

Typing Characters with the Remote

The remote control based text entry capability is similar to that provided on standard telephones and cell phones. Each numeric key has characters associated with it that can be accessed by pressing the key one or more times. You have .5 seconds after a key is pressed to enter a second character from the same key. If you press the same key within .5 seconds, the second character associated with that key replaces the initial character. If you do not press the same key within .5 seconds, the text cursor moves to the next location so that the same key can be pressed again to enter a second character.

The "2", "3", "4", "5", "6", and "8" keys each support three letters and one number and can be pressed from one to seven times to display upper case, lower case, and numeric characters. The "7" and "9" keys both support four letters and one number and can be pressed from one to nine times. The "1" and "0" keys support all of the special characters and will cycle through each character for every key press.

The text characters follow the same convention used by a standard telephone – except in the case of the "1" and "0" keys which contain additional characters.

When entering characters at the beginning of a field or characters that follow a space, FireBall SE-80 assumes that upper case characters are preferred. Therefore, characters are entered in the following cycle – uppercase, lowercase, and numeric. For example, the first key press enters an uppercase letter corresponding to the first letter associated with the key. Pressing the "2" key once displays an "A" in the text field, pressing the "2" key twice displays a "B", pressing it again will display a "C". The fourth key press displays a lower case "a", the fifth key press displays a lower case "b", and the sixth key press displays a lower case "c". Lastly, pressing the "2" key a seventh time displays the number "2".

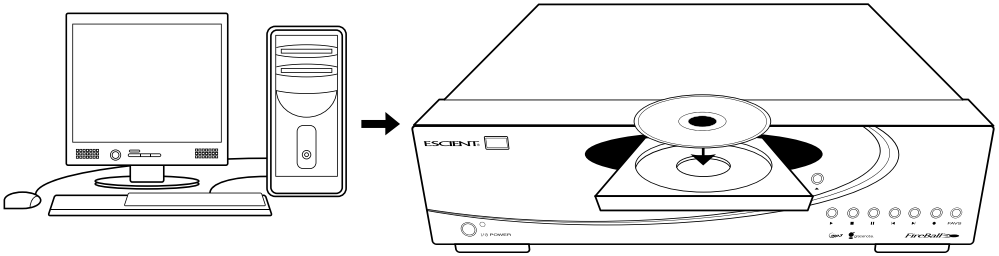
When entering the second character in a text field or the second character following a space, FireBall SE-80 assumes that lower case is preferred and the character entry cycles in the following pattern – lowercase, uppercase, and numeric.

The following text entry table describes the sequence of characters that appear when specific keys are pressed on the remote:

Key	Alpha Mode 1st character or 1st character after a space	Alpha Mode 2nd character or 2nd character after a space
1	1. / , ? ' : ; &~!	1. / , ? ' : ; &~!
2	ABCabc2	abcABC2
3	DEFdef3	defDEF3
4	GHIghi4	ghiGHI4
5	JKLjkl5	jklJKL5
6	MNOmno6	mnoMNO6
7	PQRSpqrs7	pqrsPQRS7
8	TUVtuv8	tuvTUV8
9	WXYZwxyz9	wxyzWXYZ9

GETTING MUSIC INTO FIREBALL

Before you can enjoy the many benefits of your FireBall SE-80 Music Management system, you will want to get your music collection into the FireBall. The process of getting music into FireBall is called **"Recording"** or sometimes **"Ripping"**.



There are two ways to get your music into FireBall:

- Record CDs using the internal CD Drive
- Transfer Music files from your PC using a network

You may choose to use any or all of these methods at any time. Each is described on the following pages.

RECORDING FROM THE INTERNAL CD DRIVE

The easiest way to get music into your FireBall is to record CDs using the built-in internal CD-RW drive. This method requires no additional equipment and is very fast, as the internal CD drive can rip audio at several times the speed of normal playback. This is known as “fast-ripping”.

Follow these steps to record using the internal CD-RW drive:

1. **Press the EJECT key on the front panel.**
2. **Insert an audio CD (label side up) into the CD-RW tray.**
3. **Press the EJECT key again to close the CD-RW tray.**
4. **The CD’s artist, album, and track names are automatically retrieved from the Gracenote® Music Recognition Service and are displayed on your TV.**
5. **Press the RECORD key on the remote control to display the Recording Options Menu.**
6. **Press the RECORD key a second time to choose the default recording option “Record to Internal Hard Drive”.**
7. **The Record Select Guide will be displayed showing the current CD with checkmarks to the right of each track name.**
8. **Press the RECORD key a third time to begin recording the entire CD to the internal hard drive.**

- When recording is complete, FireBall will return to the Music Guide.
- Repeat steps 1-8 for each disc in your music collection.
- *Note: It is also possible to set the FireBall to automatically record the CD when insert.* Refer to the section “Setting User Preferences” for setting Recording Preferences and Disc Insert Preferences.
- Highlight and Unselect tracks you do not wish to record before pressing RECORD for the third time.

IMPORTING MUSIC FILES

If you have MP3 files already recorded on your PC or Mac, you can transfer the files directly to your FireBall using an Ethernet network. This is a fast and convenient way to load up your FireBall with your favorite Music without having to re-record everything.

FireBall will import each audio file, extract the song information, and add it to your Music Library.

There are some rules to follow to make sure your files are transferred correctly. Please make sure your audio files follow these guidelines before importing them into your FireBall.

System Requirements

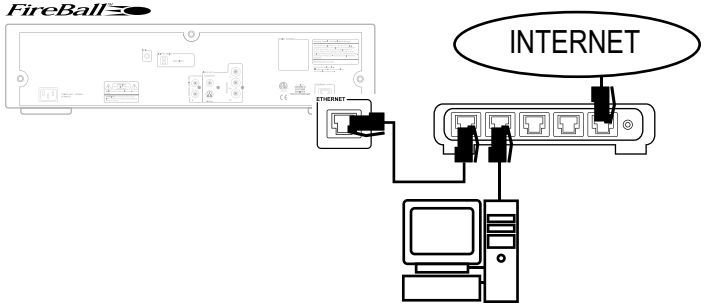
- 10/100 Ethernet network
- PC or Mac connected to the same local ethernet network as the FireBall
- Windows XP or Mac OS X

Audio File Requirements

- MP3 audio files recorded at 96k, 120k, 160k, 192k, 320k, or VBR encoding.
- ID3 tags are supported for both MP3 audio files.

Cover Art Image Requirements

- JPEG image format
- No larger than 200 pixels wide by 200 pixels high
- No larger than 30K in size
- The cover art file must be embedded in the MP3.



Importing from a PC

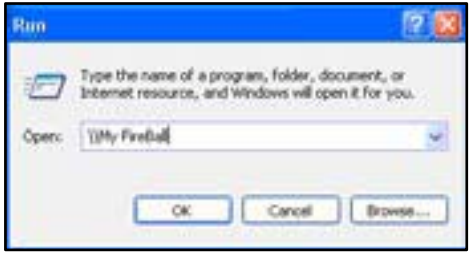
Make sure your PC is connected to the same network as your FireBall and follow these steps to mount, transfer, and import music files from your PC to your FireBall.

On the FireBall (Note: This step only needs to be done once.)

1. **Press the SETUP key on the remote control to display the Setup menu.**
2. **Select the NETWORK menu item.**
3. **Select the SERVER SETTINGS menu item.**
4. **Enter a name for your FireBall.**

On the PC

1. **Go to the START menu and select RUN.**
2. **Enter two backslashes "\\" and the name of your FireBall (the name you entered into the Server Settings) and click the OK button.**



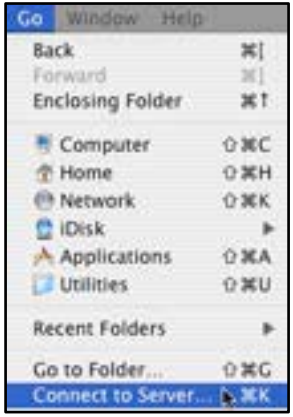
3. **You should see the following in a new window on your computer:**

4. **Drag and drop your MP3 files onto the Import folder. FireBall will automatically import, add, and catalog each file into your Music Guide.**

Importing from a Mac

FireBall's File Server acts like a Windows File Server on your network, therefore you will need to connect using the MacOS X's built-in Windows networking client. Make sure your Mac is connected to the same network as your FireBall and follow these steps to mount, transfer, and import music files from your PC to your FireBall.

1. Go to the Finder and select "Connect to Server…" from the Go Menu.



2. Type "smb://" and the name of your FireBall (the name you entered into the Server Settings) and click the Connect button

3. You should see the SMB Mount dialog appear on your computer:
4. Click on the Content pop-up menu and select the Import directory.

5. Next, an authentication dialog will appear. You can ignore this dialog and just click the OK button.

6. You will then have a new drive mounted on your desktop called “Import”.
7. Drag and drop your MP3 files onto the Import folder. FireBall will automatically import, add, and catalog each file into your Music Guide.

ERASING A CD-RW DISC

You can use FireBall's built-in CD burner to erase the contents of a re-writable CD.

Follow these steps to erase a re-writeable CD:

1. **Press the RECORD key on the remote to display the Record menu.**
2. **Select the ERASE CD-RW DISC menu.**
3. **Confirm that you want to proceed with completely erasing the disc by selecting the ERASE button on screen.**

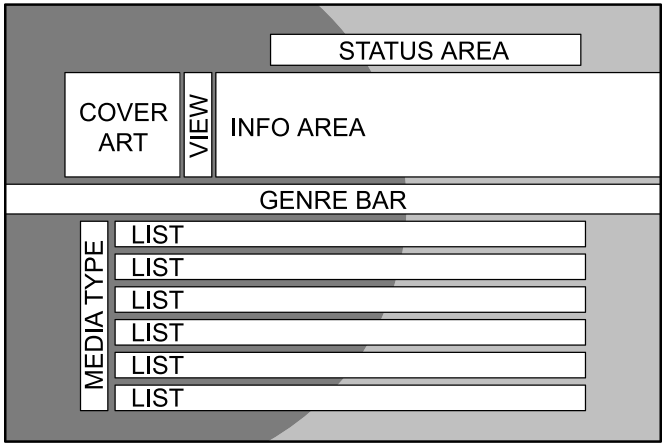
- You will not be able to interrupt the erase function.
- When FireBall completes erase disc function, it will be ejected. Remove the now blank CD-RW disc and close the CD tray.

LISTENING TO MUSIC

BROWSING YOUR MUSIC LIBRARY

Now that you have gotten your music into your FireBall, it's time to enjoy it! The **Music Guide** allows you to browse, locate, and play all of your music in one easy to use on-screen guide.

The **Music Guide** displays a scrolling list of all your Music Titles. Using the remote control, you can navigate up and down the list. As each Title is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted Title.



SHOW AND HIDE TRACKS

If you press the SELECT key on the remote control, you will expand the current Title to reveal a list of the Title's **Tracks**.

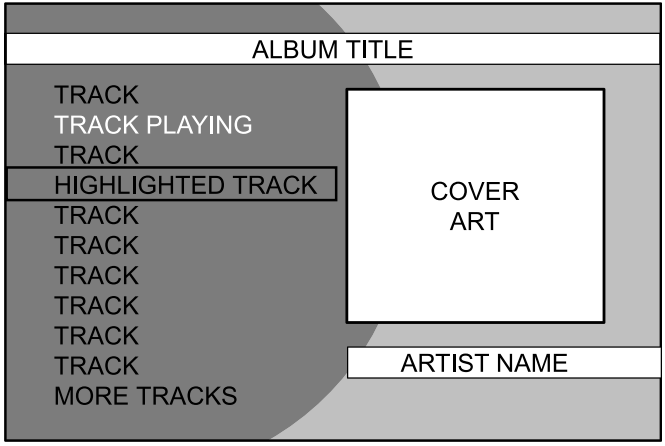
Press the **SELECT** key again (when a Title is highlighted) to collapse the current Title and hide the track names.

PLAYING THE CURRENT TITLE

Playing the currently highlighted Title is the same as playing a CD in a conventional CD player. Simply **press the PLAY key** on the remote control and it begins to play from track 1.

Note: If you press SELECT with a Track highlighted, you will start playback from the selected Track.

You'll notice that a new screen appears with a list of the songs (or tracks) on the current Title, this is the **Music Player** screen. The Music Player displays the artist name, album name, album cover art, and track list for the current Title.



SELECTING A DIFFERENT SONG

In the Music Player you can navigate up and down the track list using the remote control. Highlight a different song and press **SELECT** to play the song.

CHANGING THE GUIDE VIEW

The GUIDE button on the remote control is used to switch between the Music Guide and Music Player screens. When you are viewing the Music Player screen, press the GUIDE button to return to the Music Guide.

The Music Guide provides you with several ways to view the contents of your Music Library. One of the easiest ways to browse and sort your Music Library is by using the Music **"Views"**. There are four Views that you can switch between using the "MENU/ VIEW" key on the remote control:

- View By Artist
- View By Title
- View By Song
- View By Cover

View By Artist

View By Artist is the default View and displays your Music Library alphabetically from A to Z using according to the Artist Name then the Album Name.

View By Title

View By Title will order the list of Titles alphabetically from A to Z, according to the Album Name then the Artist Name.

View By Song

View By Song will order the list of Titles alphabetically from A to Z, according to the Song Name.

View By Cover

View By Cover displays a graphical 4x2 grid of album cover art, sorted alphabetically from A to Z, according to the Artist Name then Album Name.

CHANGING THE CURRENT PLAY MODE

The default Play Mode will play the current Title from Track 1 to the last track in order, then stop. If you want to change the order of how tracks are played, there are six different Play Modes to choose from:

- **Normal -** play each track in order in the current Title, then stop.
- **Repeat Track -** repeat the same track over and over until you press stop.
- **Repeat Title -** play each track in the current Title in order then repeat the entire disc until you press stop.
- **Repeat Group -** play each track in each title in the current group and then repeat them until you press stop.
- **Random Title -** randomly select and play a track from within the current title. Continue until you press stop or every track in the current title is played.
- **Random Group -** randomly select and play a track from any title in the current group. Continue until you press stop or every track in the current group is played

To change the current Play Mode, press the MODE key on the remote control. Each press of the MODE key will switch to the next Play Mode. Stop pressing the MODE key when you see the desired Play Mode appear on the screen. You can also directly select a Play Mode using the OPTIONS key and the Play Mode menu item.

VIEWING BY GENRE

In addition to the current Guide View, the Music Guide automatically organizes your Music into default “Genres” also called “Groups”. The Group Bar displays a horizontal scrolling list of Genres corresponding to the music in your library. Five Genres or Groups are visible at one time. The “All” genre is the default, which displays all Titles in your Music Library.

Using the **LEFT** and **RIGHT** arrow keys on the remote, you can select a different Genre. Notice that the list of Titles updates to show only Titles in the selected Genre.

- Scroll all the way to the left to return to the All Genre.
- Genre list will scroll to the right to reveal more Genres.
- Refer to the section “Managing Your Media” for instructions on creating your own Genres to create custom groupings of your favorite music titles

LISTENING TO INTERNET RADIO

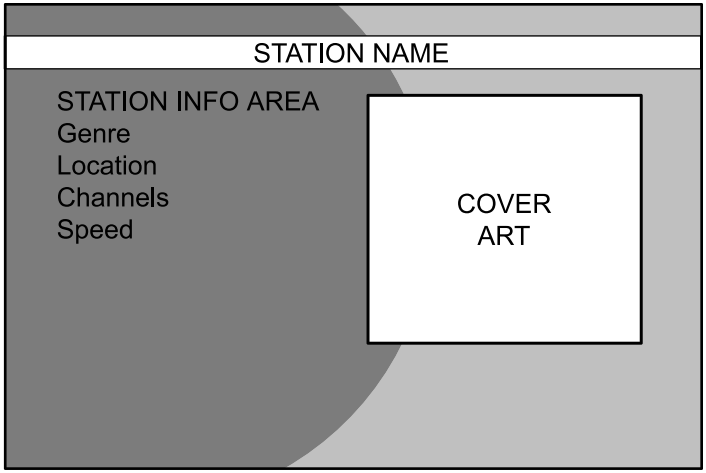
BROWSING INTERNET RADIO STATIONS

The **Radio Guide** displays a scrolling list of Internet Radio Stations. Using the remote control, you can navigate up and down the list. As each Station is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted Station.

- Press the iRADIO key on the remote control to display the Radio Guide.
- Press the MUSIC key to return to the Music Guide

PLAYING THE CURRENT STATION

Playing the currently highlighted Radio Station is the same as selecting and playing an off air radio station on a typical audio receiver. Simply **press the SELECT key** on the remote control and the currently highlighted station will be located, buffered, and then played.



You'll notice that a new screen appears displaying information about the selected station. This is the **Radio Player** screen. The Radio Player displays the station name, location, genre, genre cover art, and status about the current Internet Radio station stream.

- Playing Internet Radio requires a valid Internet connection.
- Although some stations will work over a Dialup Internet Connection, a broadband Internet connection is recommended.
- Due to the dynamic nature of the Internet, you may experience periodic audio drop-outs which could be due to many factors such as Internet access problems, busy networks, etc...
- Internet Radio Stations are not hosted by Escient and may not be available at all times. You can update your Internet Radio Stations list by running Tune Stations. Please refer to the "Managing Your Media" section for more information.

CREATING PLAYLISTS

FireBall allows you to organize your favorite songs into custom "Playlists". A Playlist is simply a group of songs that you choose from your Music Library. Common uses for Playlists are:

- Collections of your favorite songs
- Songs that have a similar tempo or feel (mellow mix)
- Custom albums from one or more of your favorite artists
- Party mixes
- Workout mixes

Follow these steps to create your own custom Playlist:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Music Options Menu**
3. **Select the NEW PLAYLIST menu item.**
4. **Using the remote control or keyboard, enter a name for your Playlist.**
5. **Select the CONTINUE button on screen to advance to the Edit Playlist Select Guide. The Edit Playlist Select Guide works just like the Music Guide. Navigate up and down to highlight, expand, or collapse music titles.**
6. **For each song you want to add to the Playlist, highlight the song name and press the SELECT key on the remote. A checkmark appears to the right of each selected song indicating that it will be added to the Playlist. Press SELECT again to remove the checkmark.**

7. When you have selected all of the songs you want to include in the playlist, press the RECORD button on the remote control to save the Playlist.

- When you are finished creating your Playlist, the Music Guide is displayed highlighting the newly created Playlist.
- You can play any Playlist the same way you play a music title or CD. Just press the PLAY key on the remote control.
- Notice that a Playlist genre is added to the Group Bar. The Playlist genre will always be available as long as you have at least one playlist in your Music Library.

CREATING GROUPS

In addition to Playlists, FireBall allows you to create custom "Groups" of Music Titles or Radio Stations. User created Groups appear in the Group Bar along with the automatically created Genre Groups and System Groups (All, CDs, Internal, and Playlists). Some uses for custom Group are:

- Organize music titles or radio stations into custom genres, like "Funk", 80's, "Hits', etc…
- Group all of the albums for a favorite artists together for quick access.
- Create an easily accessible collection of your favorite albums.

To create a custom Group, follow these steps:

1. **Press the MUSIC key to make sure you are in the Music source mode or press the RADIO key if you want to create a custom Radio Group.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the NEW GROUP menu item.**
4. **Using the remote control or keyboard, enter a name for your Group.**
5. **Select the CONTINUE button on screen to advance to the Edit Group Select Guide. The Edit Group Select Guide works just like the Music or Radio Guide.**
6. **For each Music Title or Radio Station you want to add to the Group, highlight the Title or Station name and press the SELECT key on the remote. A checkmark appears to the right of each selected Title or Station indicating that it will be added to the Group. Press SELECT again to remove the checkmark.**
7. **When you have selected all of the Titles or Stations you want to include in the group, press the RECORD button on the remote control to save the Group.**

- When you are finished creating your Group, the Guide is displayed highlighting the newly created Group.
- Notice that a custom Group is added to the Group Bar along with the System Groups.
- The custom Group will always be sorted alphabetically within the Group Bar and appear to the right of the All and Playlist Groups.

ADDING INTERNET RADIO STATIONS

FireBall comes preloaded with several high quality streaming Internet Radio Stations from around the world, but that may not be enough for you, so FireBall also let's you add your own Internet Radio Stations.

Internet Radio stations must conform to these specifications:

- Windows Media WMA streams only. (MPEG, RealAudio, and other's won't work)
- Windows Media 9 or earlier.

To add your own Internet Radio Stations, you will need to obtain the URL or Internet Link to the stream using your PC and Microsoft's Windows Media Player. Please refer to the Microsoft web site for information on WMA and Windows Media Player.

Assuming you have a valid URL for a station, follow these steps to add your own Internet Radio Station to the Radio Guide:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the NEW STATION menu item.**
4. **Using the remote or keyboard, enter information for the new station including: station name, location, URL, the bit rate of the stream, the genre, and the number of channels (mono or stereo). The cover art will be set according to which genre you select.**
5. **Select the SAVE button to save the new station.**

- When you are finished creating your new station, the Radio Guide is displayed highlighting the newly created Station.
- You can play the station just like any other Internet Radio station.

UPDATING THE INTERNET RADIO STATIONS LIST

Escient makes every attempt to insure that the preloaded Internet Radio Stations are alive and well, but due to the dynamic nature of the Internet and the third parties who actually serve up these radio streams, sometimes you will not be able to play a station. The “Tune Stations” feature allows you to download a list of the most recent Internet Radio stations from Escient.

Note: Tune Stations WILL NOT erase any custom stations you may have added, from your Radio Guide. It WILL replace the Escient supplied stations with a fresh new list.

If you want to replace the current Internet Radio Stations with a new list of stations, follow these steps:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the TUNE STATIONS menu item.**
4. **Read the WARNING screen and select OK to proceed.**
5. **FireBall will Connect to the Escient server and download the latest Internet Radio Stations.**

When you are finished Tuning the Stations, the Radio Guide is displayed showing the new Escient provided Internet Radio Stations and any user added stations.

EDITING MUSIC INFORMATION

FireBall has access to over 2.5 million CD titles, but you may still encounter a CD that does not return a custom cover or the correct disc information. You can edit the disc information for any Music Title using the Edit Disc and Edit Tracks screens.

Editing Disc Info

Follow these steps to edit the disc information for the current Music Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Using the remote control or wireless keyboard, change the artist name, album title, label, year of release, or genre.**
5. **Select the SAVE button to save your changes and return to the previous screen.**

Automatically Lookup Information for This Disc

The "Lookup This Disc" button will initiate a disc lookup for only this disc. FireBall will connect to the Gracenote® Music Recognition Service to locate and download the disc information.

Follow these steps to lookup information for the current disc:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Select the LOOKUP THIS DISC BUTTON. The Get Music Info screen will be displayed as FireBall attempts to lookup the disc information from the Gracenote® Music Recognition Service for you.**
5. **When the lookup is complete, you will return to the Edit Disc Information screen where you can verify or edit the results.**
6. **Select the SAVE button to save your changes and return to the previous screen.**

Searching for the Original Cover

Occasionally the wrong cover or the default cover will be displayed for a Music Title. You can manually search for the original cover art by using the "Search for Cover" feature. This is a powerful tool that allows you to search the Escient servers for an exact or partial match using the artist name and/or album name.

Follow these steps to search for a cover:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Select the SEARCH FOR COVER button to display the Search for Cover screen.**
5. **The current Artist Name and Album Title are entered as the default search strings. You can change either one of these to modify the search. Note that editing the Artist Name or Title WILL NOT change them in the Music Library. These edits are ONLY used to search for a new cover.**
6. **Select the SEARCH button to start the search.**
7. **The Get Music Info screen will be displayed as FireBall attempts to search for the cover using the Artist Name and Title you entered.**
8. **When the search is complete, you will return to the Edit Disc Information screen where you can verify or edit the results.**
9. **Select the SAVE button to save your changes and return to the previous screen.**

Tips for Searching for Covers

The Escient server uses a fuzzy-match algorithm to locate a matching cover using the Artist Name and Title you enter.

There are a few tips to try when searching for covers:

- Remove any punctuation marks from the Artist Name and Title.
- Remove Disc Numbers from the Titles.
- Try different spellings in the Title.
- Try removing part of the Artist Name (if it is more than 2 words).

Selecting an Existing Cover

If for some reason you can not download the original cover, you can choose one of the existing covers for the current Title.

Follow these steps to select an existing cover to assign to the current Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Select the SELECT A COVER button to display the Select Cover Art screen.**
5. **Using the arrow and page keys on the remote control, locate the name of the Title corresponding to the cover you wish to use for the current Title. Notice that a preview of the selected cover appears on the right of the list as you highlight each name.**
6. **Press the SELECT key on the remote control when you have located the cover of your choice.**
7. **Select the SAVE button to save your selection and return to the previous screen.**

Editing Track Names

You can also manually edit the Track/Song names of the currently highlighted Title in the Music Guide.

Follow these steps to edit the track information for the current Music Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT TRACKS menu item to display the Edit Tracks screen.**
4. **Using the remote control or wireless keyboard, change the name of each track.**
5. **Press the SELECT button to advance to the next track.**
6. **Select the SAVE button to save your changes and return to the previous screen.**

EDITING RADIO INFORMATION

Similar to editing Music Information, you can also Edit the Radio Information.

Follow these steps to edit the station information for the currently highlighted Internet Radio Station:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the EDIT STATION menu item to display the Edit Station screen.**
4. **Using the remote or keyboard, edit the information for the new station including: station name, location, URL, the bit rate of the stream, the genre, and the number of channels (mono or stereo). The cover art will be set according to which genre you select.**
5. **Select the SAVE button to save the changes.**

EDITING PLAYLISTS

You can change the name and add or remove tracks from any Playlist you created.

Follow these steps to edit a Playlist:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Highlight the Playlist Name you want to edit. Note: The Playlist group will list all of your Playlists.**
3. **Press the OPTIONS key to display the Music Options Menu**
4. **Select the Edit Playlist menu item.**
5. **Using the remote control or keyboard, change the name of your Playlist or select the CONTINUE button on screen to keep the current name and advance to the Edit Playlist Select Guide.**
6. **For each song you want to add to the Playlist, highlight the song name and press the SELECT key on the remote. A checkmark appears to the right of each selected song indicating that it will be added to the Playlist.**
7. **For each song you want to remove from the Playlist, highlight the song name and press the SELECT key on the remote. The checkmark to the right of the song will be removed, indicating that the song should be removed from the Playlist.**
8. **When you have added or removed all of the songs you want to include in the playlist, press the RECORD button on the remote control to save the Playlist.**

- If you remove all songs from a Playlist, the Playlist is automatically deleted.
- You can not reorder songs within a current Playlist.

EDITING GROUPS

As with Playlists, you can also edit the name of a Group, add Music Titles or Radio Stations to the Group, or remove Music Titles or Radio Stations from the Group.

Follow these steps to edit a Group:

1. **Press the MUSIC key if you want to edit the Music Groups or press the RADIO key if you want to edit the Radio Groups.**
2. **Highlight the Group you want to edit within the Group Bar.**
3. **Press the OPTIONS key to display the Music Options Menu**
4. **Select the Edit Group menu item.**
5. **Using the remote control or keyboard, change the name of your Group or select the CONTINUE button on screen to keep the current name and advance to the Edit Group Select Guide.**
6. **For each Music Title or Radio Station you want to add to the Group, highlight the Music Title or Radio Station and press the SELECT key on the remote. A checkmark appears to the right of each selected Music Title or Radio Station indicating that it will be added to the Group.**
7. **For each Music Title or Radio Station you want to remove from the Group, highlight the Music Title or Radio Station and press the SELECT key on the remote. The checkmark to the right of the Music Title or Radio Station will be removed, indicating that the Music Title or Radio Station should be removed from the Group.**

8. When you have added or removed all of the Music Titles or Radio Stations you want to include in the playlist, press the RECORD button on the remote control to save the Group.

You can not edit the System Groups (All, CDs, Internal, or Playlists).

- If you remove all Titles or Stations from a Group, the Group is automatically deleted.
- You can not reorder Titles and Stations within a Group. They are always sorted alphabetically.

DELETING MUSIC

You can remove any music you have recorded to the FireBall by using the Delete Music feature. You may want to do this if you have filled up your FireBall and you can not record any more music or if you want to remove songs that you just don't listen to.

Follow these steps to delete music from your FireBall:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE MUSIC menu item to display the Delete Music Info screen.**
4. **Press the CONTINUE button to proceed to the Delete Music Guide.**
5. **For each Track you want to delete, highlight the Track and press the SELECT key on the remote. A checkmark appears to the right of each selected Track indicating that it will be deleted. Press the SELECT key again to remove the checkmark. Pressing the TOGGLE key on the remote when a Title is highlighted will toggle all or none of the Title's tracks for deletion.**
6. **When you have selected all of the Titles you want to delete in the group, press the RECORD button on the remote control to permanently remove and delete the checked tracks.**

You can not "delete" physical CDs from the Music Library. You must remove the discs from your changers if you want the CDs to be removed from the Music Guide.

DELETING PLAYLISTS

You may delete entire Playlists from the Music Guide. Follow these steps to permanently delete one or more Playlists from the Music Guide:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE PLAYLISTS menu item to display the Delete Playlists screen.**
4. **For each Playlist you want to delete, highlight the Playlist and press the SELECT key on the remote. A checkmark appears to the right of each selected Playlist indicating that it will be deleted. Press the SELECT key again to remove the checkmark.**
5. **When you have selected all of the Playlists you want to delete, select the DELETE button to permanently remove and delete the checked Playlists.**

DELETING GROUPS

Deleting Groups from the Group Bar is very similar to deleting Playlists. The contents of the Group (the Music Titles or Radio Stations) are not deleted. They are still available in any other Groups they may be assigned to and in the All Group.

Follow these steps to delete Groups.

1. **Press the MUSIC key if you want to edit the Music Groups or press the RADIO key if you want to edit the Radio Groups.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE GROUPS menu item to display the Delete Playlists screen.**
4. **For each Playlist you want to delete, highlight the Playlist and press the SELECT key on the remote. A checkmark appears to the right of each selected Playlist indicating that it will be deleted. Press the SELECT key again to remove the checkmark.**
5. **When you have selected all of the Playlists you want to delete, select the delete button to permanently remove and delete the checked Playlists.**
6. **You can not delete the System Groups (All, CDs, Internal, or Playlists).**

CREATING CDS

FireBall SE-80 is a complete media solution for storing, managing, and listening to your music, but what if you want to get your music out of your FireBall and take it with you? FireBall SE-80 has that covered as well. You can easily create custom mix CDs, backups copies of any physical CD, and record from the external analog inputs to a CD.

CREATING A CUSTOM MIX CD

A Custom Mix CD is a collection of songs that you record or "burn" to a blank CD. The new CD can then be played in your car stereo, computer, or any CD player which supports CD-R or CD-RW discs.

Follow these steps to create a custom Mix CD:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the RECORD key to display the Music Record Options menu.**
3. **Select the CREATE AN AUDIO MIX CD button if you want to create a standard audio CD which can be played in almost any CD player or select the CREATE A DATA MIX CD button if you want to create an data CD that can be played in any computer or CD player which supports MP3 CDs.**
4. **When the Music Record Select Guide appears, you can select one or more songs to include on your Mix CD. Navigation of the Record Select Guide is the same as the other Guide screens. Note: You can select up to 80 minutes or 700 MB of songs because these are the maximum limits of recordable CDs.**
5. **Press the RECORD key again to continue the recording process and display the Music Record Progress – CD Read screen.**

6. FireBall will read each song you have selected and assemble an "image" of all songs on it's internal hard drive. Note: If you selected any songs which are from changer based CDs, this process may take a while to complete as these songs must be read in real-time.
7. After all of the songs have been read, FireBall will ask if you want to add any more tracks to the CD. Select ADD MORE if you do want to add more tracks or select DONE to continue creating the CD.
8. When FireBall has added all of your songs and finished creating the new CD image, it will eject the CD tray and ask you to insert a blank CD.
9. Insert a blank CD-R or CD-RW disc and close the CD tray by pressing the Eject button on the front panel. Note: You must use royalty paid blank CDs which are typically marked as "audio" or "music" CDs when creating and Audio CD. Data CDs typically used for computers can be used for data mix CDs.
10. The Music Record Progress – CD Write screen now appears as the CD image is written to the blank CD.
11. When the CD is complete, the new disc you created will be ejected. Remove the disc and close the CD tray.

DUPLICATING A CD

You can duplicate any physical disc located in the internal drive or any external changer. These discs are for backup purposes only.

Follow these steps to duplicate a CD:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the RECORD key to display the Music Record Options menu.**
3. **Select the DUPLICATE A DISC button to display the Music Record Select Guide.**
4. **Select a CD from any external changer or select the internal drive's CD. A check mark will be placed next to the selected disc.**
5. **Press the RECORD key again to continue the recording process and display the Music Record Progress - CD Read screen.**
6. **FireBall will read the selected CD and create an "image" of the CD on it's internal hard drive. Note: If you selected any songs which are from changer based CDs, this process may take a while to complete as the CD must be read in realtime.**
7. **After the entire CD has been read, FireBall will eject the CD tray and ask you to insert a blank CD.**
8. **Insert a blank CD-R or CD-RW disc and close the CD tray by pressing the Eject button on the front panel. Note: If you are duplicating an audio CD, you must use royalty paid blank CDs which are typically marked as "audio" or "music" CDs. Data CDs typically used in computers can be used for duplicating MP3 CDs.**
9. **The Music Record Progress - CD Write screen now appears as the CD image is written to the blank CD.**
10. **When the CD is complete, the new disc you created will be ejected. Remove the disc and close the CD tray.**

SETTING USER PREFERENCES

User preferences are available to specify global configuration options and preferred system settings. Press the SETUP key on the remote control to display the Setup Menu. Use the navigation keys on the remote control (up, down, left, and right) to highlight and select any menu item.

SETTING THE SCREEN SAVER PREFERENCES

Screen Savers are provided for each source mode. Screen Savers provide two important functions, to prevent a static image from being displayed on the video output device for extended periods of time and to provide useful information to the user when activated.

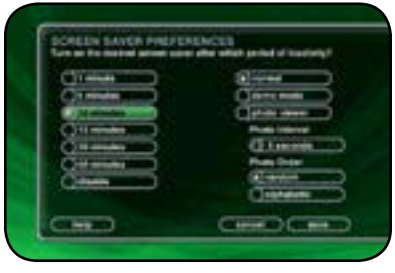
Follow these steps to set your screen saver preferences:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the GENERAL Menu**
3. **Select the SCREEN SAVER Menu**
4. **Select your Screen Saver Preferences**

Activation Idle Time

You can specify the amount of idle time that FireBall will wait before activating the screen saver from 1 to 60 minutes.

Warning: Some televisions and plasma monitors are more susceptible to screen burn-in than others, therefore, we recommend using a low activation time (like 1 minute) to reduce the risk of burn-in.



Other Modes

Select either the Normal mode, Product Demonstration, or Photo mode. The Normal mode displays the current title or station information while the Product Demonstration mode is intended for retail product demos during idle time.
reduce the risk of burn-in.

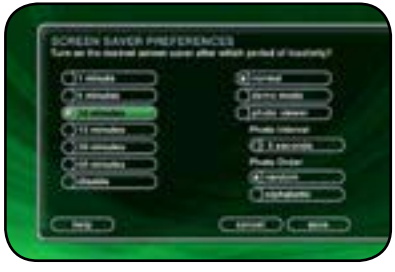
Photo Screen Saver Mode

FireBall has a Photo Screen Saver Mode for displaying your own photos whenever FireBall is idle for a specified period of time. You can import your own photos into the Photos shared directory using Windows Networking. Photos should be 720x480 for 4:3 NTSC TVs and 640x360 for 16:9 widescreen TVs.

Follow these steps to enable the Photo Screen Saver Mode in your FireBall:

1. **Press the SETUP key on the remote.**
2. **Select the General menu.**
3. **Select the Screen Saver menu.**
4. **Select the Photo Viewer option and the number of minutes to wait before displaying the next photo.**
5. **Select Random or Alphabetical ordering.**
6. **Select the Save button.**

- The Photos Screen Saver will be activated whenever the FireBall is idle for the specified period of time.
- Do not set the idle time too high as the possibility of screen burn is increased with certain types of displays, particularly "Plasma" type displays.



SETTING YOUR TIME ZONE

Specify which US time zone your FireBall is located in.

Follow these steps to set your Time Zone:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the GENERAL Menu**
3. **Select the TIME ZONE Menu**
4. **Select your select your Time Zone.**

CUSTOMIZABLE USER INTERFACE

In addition to the Escient Classic user interface theme, the FireBall allows you to select a custom theme and select your own background images for each Guide, Player, Options, Setup, and Message screens. You can import your own background images into the Backgrounds shared directory using Windows Networking. Images should be 720x480 and saved in either jpg, gif, or png formats.

Follow these steps to select a custom background on your FireBall:

1. **Press the SETUP key on the remote.**
2. **Select the General menu.**
3. **Select the User Interface Skins menu.**
4. **Select the Custom Theme and Select the Save button.**
5. **After the Custom Theme is installed, you will see the Custom Backgrounds Select screen.**
6. **Select the screen you want to set the background for (Music Guide, Music Player, Music Option, etc….**
7. **Scroll down the list and highlight an image. A preview will be displayed to the right of the list.**
8. **Press the Select key on the remote to select the desired image.**
9. **Repeat steps 6 – 8 for each screen you want to customize.**
10. **Select the Save button when you are done to return to the Setup menu.**

Note: Some backgrounds look better than others. In general, backgrounds with darker colors and few small details are better.

ENABLING PASSWORD PROTECTION

Optional Password Protection enables you to limit user access to the Setup Menus. This is useful to lockout the ability to change the global user settings and preferences.

Setting a System Password – Follow these steps to setup a new system password:

1. **Using the remote control, enter a 4 to 8 digit code into the password field.**
2. **Press the SELECT key to highlight the VERIFY field.**
3. **Re-enter the same password for verification.**
4. **Press the SELECT key to highlight the SAVE button.**
5. **Press SELECT again to save your password and enable Password Protection on the Setup Menus.**

- You must exit Setup and re-enter setup to activate the password protection.
- If a user password is specified, you will be prompted for your password whenever you press the Setup key on the remote.
- If the password entered matches the stored password, full access is granted to the user until the next power off cycle.
- If the password does not match, the user will be asked 2 more times to enter the correct password. If after the third try the password still does not match, the system will not allow the user access to the Setup menus.
- If the user does not specify a System Password, access to the Setup menus will be allowed whenever you press the Setup key.

Removing a System Password – Follow these steps to remove the system password:

1. **Press the SETUP key and enter your existing system password.**
2. **Highlight the CLEAR button on screen and press the SELECT key on your remote.**
3. **The password and verify fields will be cleared.**
4. **Highlight the SAVE button and press SELECT.**

You will now be able to enter Setup without entering a password.

CHOOSING YOUR NETWORK CONNECTION

FireBall supports two networking methods, Ethernet and Dialup Modem. Your FireBall must be connected to the Internet in order to lookup disc information, download software updates, and access Internet Radio.

Note: An external modem is necessary for Dialup access. External modems are available from most computer retail stores or contact your Escient dealer for more details.

If you have a broadband Internet connection such as a cable modem, DSL, or ISDN line, select Ethernet and connect FireBall to your Ethernet network. You may need additional networking hardware(like an Ethernet hub) to join your FireBall to your Ethernet network. See your Escient dealer for more information about home networking.

If you have a dialup ISP (Internet Service Provider (such as AOL, Compuserve, Earthlink, MSN etc…) select the Dialup Modem button.

Follow these steps to select your network connection:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK Menu**
3. **Select the NETWORK CONNECTIONS Menu**
4. **Select either ethernet or dialup modem.**

Testing the Your Connection

It is a good idea to verify that your selected network connection is functioning properly before exiting the Network Connections screen.

Follow these steps to test your selected network connection:

1. **Select the TEST CONNECTION button on the Network Connections screen.**
2. **Wait for the tests to complete. A check mark next to each test indicates that it passed while an "X" indicates that the test failed.**
3. **Select the RETURN button to return to the previous screen.**

If one or more connection tests receive an X, make sure your cables are properly connected and you have properly setup for Ethernet Settings or Dialup Modem Settings.

Ethernet Settings

Ethernet is the preferred networking choice which provides you with the best network performance and allows your FireBall to act as a "server" to deliver your music collection throughout your home network using the optional FireBall Music Players.

Ethernet networks require that you configure each device on the network with a valid "address". These addresses are usually configured automatically by your network hardware. If your PC is setup using Dynamic or "DHCP" addressing, you should most likely use the same for your FireBall.

Connect your FireBall to your Ethernet network using the included Ethernet cable and then follow these steps to specify your Ethernet settings:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK Menu**
3. **Select the ETHERNET SETTINGS Menu**
4. **Select Dynamic for automatic address configuration or Static if you want to manually enter your TCP/IP address information.**

If you select Static TCP/IP addressing, you will need to obtain a valid IP address, subnet mask, DNS server, and gateway addresses from your network administrator.

SETTING THE FIREBALL SERVER SETTINGS

Your FireBall can act as a "server" delivering audio to optional remote FireBall MP "clients". FireBall's server also allows you to control it remotely using a web browser on your PC and allows Network File Sharing for backup and import features. The FireBall Name allows you to easily locate and connect to your FireBall by name.

Follow these steps to enter a name for your FireBall:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK menu.**
3. **Select the FIREBALL SERVER SETTINGS menu.**
4. **Enter a name for your FireBall using the remote control or wireless keyboard. For example: "Living Room" or "Home Theater" might be a name which helps identify which FireBall you want to connect to.**

Follow these steps to enter a password to be used when connecting to your FireBall from a web browser:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **select the NETWORK menu.**
3. **Select the FIREBALL SERVER SETTINGS menu.**

Enter a password to be used from your PC when connecting from your web browser.

Note: There is no User Name when connecting from a web browser.

SELECTING THE MP3 BIT RATE

The MP3 bitrate is used to determine the relative quality and compression level. The higher the bitrate, the better quality and more space each song will occupy on the hard drive. Selecting a lower bitrate will provide lesser quality audio and will use less space for each song, allowing you to store more songs on your FireBall.

Follow these steps to select an MP3 encoder bitrate:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the AUDIO menu.**
3. **Select the RECORDING PREFERENCES menu.**
4. **Select your preferred bitrate.**

SETTING THE DISC INSERT PREFERENCES

You can specify what to do with new discs inserted into FireBall's front panel CD drive. "Display and Play" will display the information for the disc and then play the disc. Record and Eject assists in bulk recording, allowing you to insert disc after disc, automatically recording then ejecting each one.

Follow these steps to set the Disc Insert Preferences:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the AUDIO menu**
3. **Select the DISC INSERT PREFERENCES menu**
4. **Select Display and Play or Record and Eject.**

Record and Eject will use the current Recording Preferences to record each disc to your internal hard drive. The Record Select Guide will not be displayed as all tracks are automatically selected and recorded to the internal hard drive. Use the Delete Music feature to delete any unwanted tracks.

VIDEO OUTPUT PREFERENCES

In addition to screen centering capabilities, FireBall provides 4 video test images to assist with obtaining the best possible video display of FireBall on your TV.

Centering the FireBall Screen

Allows you to center the FireBall user interface horizontally on your TV screen.

Follow these steps to center the FireBall screen:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the SCREEN CENTERING menu.**
4. **Using the Left and Right keys on the remote, adjust the screen so that it appears horizontally centered on your TV.**
5. **Press the SELECT key on the remote to highlight the SAVE button.**
6. **Press SELECT again to save the current position.**

Adjusting your TV's Brightness

Follow these steps to adjust the brightness on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the BRIGHTNESS menu.**
4. **Turn your TV's brightness control all the way up then lower it to the point where the vertical black bar on the left just disappears. This will get your brightness control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu.**

Adjusting your TV's Contrast

The Contrast or Picture Adjustment control allows you to optimize the contrast (which is sometimes called Picture) of their TV, using the TV's Contrast or Picture controls. This setting helps reduce video "blooming" and create a clearer, more readable user interface.

Follow these steps to adjust the contrast on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the CONTRAST menu.**
4. **Turn your TV's Contrast or Picture control all the way up, then lower it to the point where the vertical line appears straight and does not bend. It may not be possible to make it completely straight on some TV sets. This will get your Contrast control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**

Adjusting your TV's Sharpness

The Sharpness adjustment allows you the set the Sharpness or Detail control of their TV so that onscreen text is as readable as possible. Proper adjustment of the Sharpness control (sometimes called the Detail control) on your TV, allows you to see video and on screen menus more accurately.

Follow these steps to adjust the sharpness on your TV:

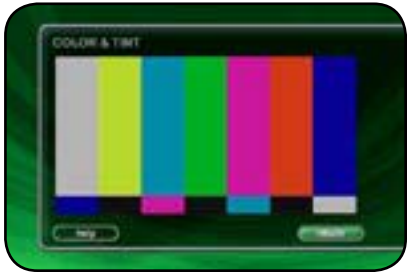
1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the SHARPNESS menu.**
4. **Turn your TV's Sharpness or Detail control up and down until the text on the screen is as readable as possible. Be sure to adjust your Brightness and Contrast before adjusting the Sharpness control. This will get your Sharpness control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**

Adjusting your TV's Color and Tint

Color Bars are used to test the TV monitor's ability to reproduce the proper color values.

Follow these steps to adjust the Color and Tint on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the COLOR BARS menu.**
4. **Turn your TV's Color and Tint controls up and down until the color bars are at the point where they are not appearing to bleed together and the colors do not appear to be too bright. This will get your Color and Tint controls as close as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**



FIREBALL UTILITIES

Getting Information about Your FireBall

Information about your FireBall hardware and software is available under the Utilities menu. This information is useful for troubleshooting any problems you may encounter with your network connection or verifying the current software versions.

Follow these steps to view the FireBall system information:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the SYSTEM INFORMATION menu.**

Restarting the System

There are two ways of manually performing a full restart or reboot of the FireBall system, one using the front panel power button and the other using the Restart System menu.

Follow these steps to restart the system using the front panel Power Button:

1. **Press and hold the power button for 4 seconds.**
2. **When the LED on the front panel begins to flash, release the power button.**
3. **When the LED on the front panel glows solid RED (standby mode), FireBall is ready to use.**
4. **Press and release the Power button to turn on FireBall.**

Follow these steps to restart the system using Utilities menu:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the RESTART SYSTEM menu.**
4. **Confirm that you want to restart the system and select the RESTART button.**
5. **When the LED on the front panel glows solid RED (standby mode), FireBall is ready to use.**
6. **Press and release the Power button to turn on FireBall.**

Updating the Software

FireBall will automatically check the Escient server once a week for any FireBall software updates, and automatically install them. You can also manually check for a software update.

Follow these steps to manually update the software:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the UPDATE SOFTWARE menu.**
4. **Confirm that you want to update the current software.**
5. **FireBall will connect to Escient and compare the current software version with the latest release. If a newer version of the FireBall software is available, it will be downloaded and installed.**

CONTROLLING FIREBALL FROM A WEB BROWSER

FireBall contains a built-in web server which means you can connect to your FireBall and remotely control it using a standard web browser over your home network.

SETTING UP THE FIREBALL WEB SERVER

Your FireBall acts as a web server on your network allowing you to connect and control the FireBall using your PC or Mac computer. This web server is automatically configured and started each time the FireBall is plugged in. You connect to the server from your PC or Mac using Internet Explorer or Safari (Mac OSX) using TCP/IP addressing over your home network. You can use a wireless or wired Ethernet network, as long as you have a DHCP router or if you have assigned static IP addresses. Please contact your Escient dealer if you need assistance with setup a home network.

The FireBall Server Name entered on the Server Settings Menu in the SETUP/NETWORK menus is used for the web address to access the FireBall web interface.

CONNECTING TO YOUR FIREBALL USING A WEB BROWSER

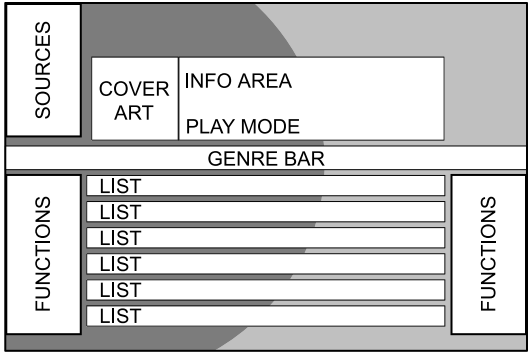
Note: Any standard web browser which supports HTML 4.0 standards should work, however Escient officially supports Inernet Explorer on Windows XP and Safari on Mac OS X.

Follow these steps to connect to your FireBall using your Windows XP or Mac OS X computer:

1. **Launch Internet Explorer or Safari on your computer.**
2. **Enter the FireBall Server Name into the browser just as if you were entering a web address to connect to a web site.**
3. **Your browser should connect to your FireBall and display the FireBall HTML interface.**

USING THE WEB USER INTERFACE

Using the Web User Interface displayed in your Web Browser, you can control almost every aspect of your FireBall. The Web User Interface is setup very similarly to FireBall's own TV user interface allowing access to each source (Music, Movies, Radio) as well as all major features such as Setup, Guide/Player, Options and Edit Screens.



Use your keyboard and mouse to navigate the web interface instead of the IR remote control. Access to all of the major functions is provided by the buttons along the left and right side of the web interface. These buttons duplicate those found on the remote control.

USING THE WEB BROWSER AS A MUSIC CLIENT

In addition to remotely controlling your FireBall, the built-in web server also functions as a streaming MP3 music files to the web browser, providing an easy way to add multiple streaming music clients to your FireBall.

Note: Your web browser and computer must be setup to properly handle streaming .mp3 files. The proper configuration of these settings is beyond the scope of this document. Please consult with your computer manufacturer or other online support sources for more information about playing MP3 files on your computer.

Follow these steps to configure the FireBall web interface client mode to either streaming from or remote controlling your FireBall:

1. **Make sure your web browser is properly configured and connected to your FireBall.**
2. **Click the SETUP button on the left side of the screen to display the Setup Menu.**
3. **Click the WEB CLIENT Mode menu item at the top of the page.**
4. **Select STREAMING CLIENT Mode to set the Web Browser as the streaming music client or select SYNCHRONIZED Mode to remotely control your FireBall.**
5. **Click the SAVE button to save your selection and exit the Setup Menu.**

Selecting music from the Web Browser will now cause the music to be played from the computer's own audio system rather then from the FireBall itself.

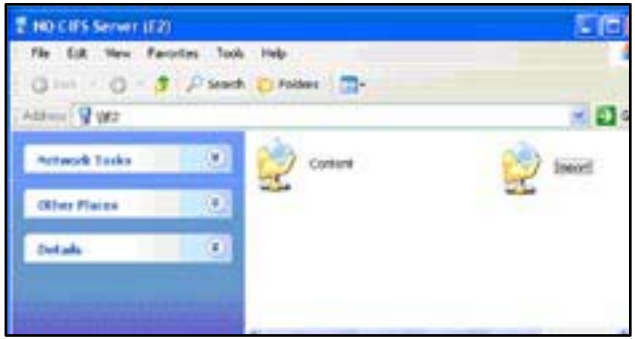
To set the Web Client Mode back to Remote control, follow these same instructions but select **Synchronized Mode** instead of **Streaming Client Mode**.

BACKUP AND RESTORE

FIREBALL MUSIC BACKUP

It is possible to backup and restore the music contents of a FireBall using the PC file sharing feature. Backup is accomplished by mounting the FireBall onto your PC or Mac desktop and using your computer's backup software.

You can also backup the music files to any standard media which your PC supports, such as: DVD+/-R/W, CD-R/RW, or external hard drive.



FIREBALL MUSIC RESTORE

You can restore music to a FireBall using the same method used for importing audio files into a FireBall. Restore and Import both use the PC file sharing feature to add audio files to a FireBall. Simply drag your music files to the Import directory and let FireBall import the audio files.

Note: This may take several days for a large music collection!

Upon Import, FireBall will rebuild the internal database based on the music file's ID3 tag information.

ESCIENT PRODUCT SUPPORT

Contact your dealer or Escient's Customer Support group.

Hours: Monday - Friday 9:00am - 7pm EST

Phone: 800-372-4368 Press "2" for Sales, or "3" for Support
Fax: 317-616-6790
Internet: www.escient.com
Email: support@escient.com

Please have the following information ready for the Escient Customer Support technician:

- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

SPECIFICATIONS

Specifications are subject to change without notice. Please check the Escient web site for any changes to the specifications.

Video Specifications

- NTSC
- 10 bit Video DACs
- Frequency Response:
- Composite: -2 dB @ 5MHz
- S-Video: -2 dB @ 5MHz
- SNR: 50 dB
- Crosstalk: 50 dB
- Input Impedance: 75Ohm
- Output Impedance: 75Ohm

Audio Specifications

- Frequency Response: 2 – 20,000 Hz, ±1 dB
- THD+N (playback) < -80 dB FS A (< 0.01%)
- A_D-DSP-D-A Dynamic Range: > 96 dB FS A @ 1kHz
- Channel Separation: >95 dB
- Full Scale Line Output: >2 Vrms, 50 k ohms
- S/PDIF Output: 0.4Vpp to 0.6Vpp, <0.05Vdc (75ohm terminated)
- Power Requirements: AC 90-132 VAC, 50-60 Hz
- Power Consumption: < 60 watts

Physical Specifications

Width: ~ 17 3/8”
Height: ~ 4 5/8” w/ feet; ~ 4” w/o feet
Depth: ~ 11 7/8”; Installed 14 3/8”

Power Supply Specifcations

- Open frame 60 Watt Supply
- Full Power Off accomplished by removing the power cord from the wall power outlet

3rd Party Certifcations

- FCC: US Part 15, Class B
- NTSC Video Output: NTSC RS-170A
- cETL Listing
- Conforms to: UL STD 6500-2000
- Certified to: CAN/CSA STD E60065-00
- CE

FCC Part 15, Subpart B

Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.
- Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

Gracenote® End-User License Agreement
USE OF THIS PRODUCT IMPLIES ACCEPTANCE OF THE TERMS BELOW.

This product contains technology and data from Gracenote of Emeryville, California ("Gracenote"). The technology from Gracenote (the "Gracenote Embedded Software") enables this product to do disc identification and obtain music-related information, including name, artist, track, and title information ("Gracenote Data"), which is included on the Gracenote Database (the "Gracenote Database").

You agree that you will use Gracenote Data, the Gracenote Database, and Embedded Software for your own personal non-commercial use only. You agree that you will access Gracenote Data only by means of the standard end user functions and features of this product. You agree not to assign, copy, transfer or transmit the Embedded Software or any Gracenote Data to any third party. YOU AGREE NOT TO USE OR EXPLOIT GRACENOTE DATA, THE GRACENOTE DATABASE, OR GRACENOTE COMPONENT, EXCEPT AS EXPRESSLY PERMITTED HEREIN.

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PRODUCTS FOR THE HUMAN INTERFACE.

FIREBALL SE ADVANCED USER'S GUIDE

An Advanced Guide to the Escient FireBall SE Series Music Server

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About This Manual

This manual describes the advanced features of Escient's SE FireBall Music Server. The FireBall SE installation steps and basic operations are described in the "***FireBall SE Startup Guide***" which is included in the box and is available on line at www.escient.com/support. There is also a "***FireBall SE User's Manual"*** that describes the operation and features in more detail and is also available on the Escient Support web site

What This Manual Covers

This manual describes the following advanced features:

- Additional Connection and Hookup Information
- FireBall Networking: Beyond Ethernet
- Registration
- Retail Demo Mode
- Photo Screen Saver
- Custom Backgrounds
- Peer to Peer Music Sharing
- Networked Audio using FireBall MP and DVDM-100 Music Clients
- Backup and Restore
- Advanced Utilities
- Remote and Keyboard Control Programming
- Escient RC-6 IR Key Codes
- Optional Accessories
- Technical Support
- Troubleshooting

Manual Updates

The dynamic nature of an advanced convergence product like the FireBall allows software features to be updated automatically over the Internet. Because of this, features may change without notice. Please check the Escient web site at http://www.escient.com/support for up to date information and periodic updates to this document.

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Additional Connection and Hookup Information

Audio Outputs

The digital optical and analog audio outputs are active when playing media from the internal hard drive or Internet Radio.

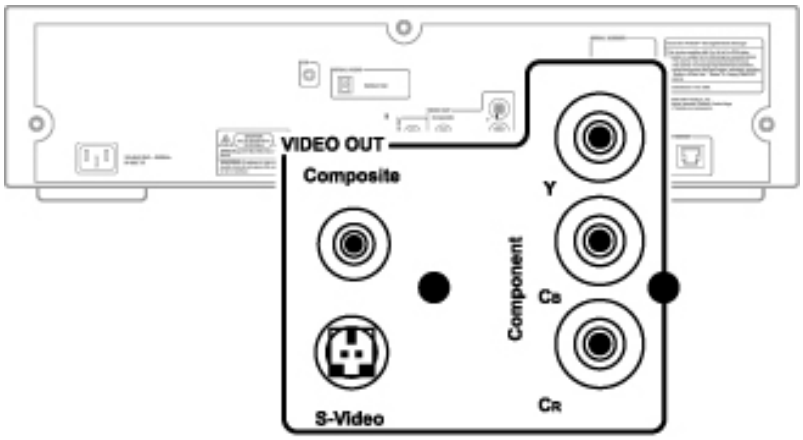
This table shows which audio outputs are active for each type of audio source.

		Analog Out	Digital TosLink Out
Audio Source	Hard Drive Audio	YES	YES
	Internet Radio	YES	YES

Video Outputs

FireBall has several video output formats and connectors including:

- 1 S-Video
- 1 Composite Video
- 1 Component Video (480i interlaced standard definition)



FireBall Video Output Connectors

All video outputs are active at the same time, so you can use as many as you like without causing signal degradation.

The Component Video output will provide the best possible video quality for the FireBall User Interface, but will require that your video system has an available component input. The FireBall user interface is 720x480 (480i) and will appear correctly on a 16x9 display provided you have set the Video Format to 16x9 under Setup/Video/. If your display has the option to select different resolutions for each input, you can select another viewing resolution which eliminates the horizontal distortion.

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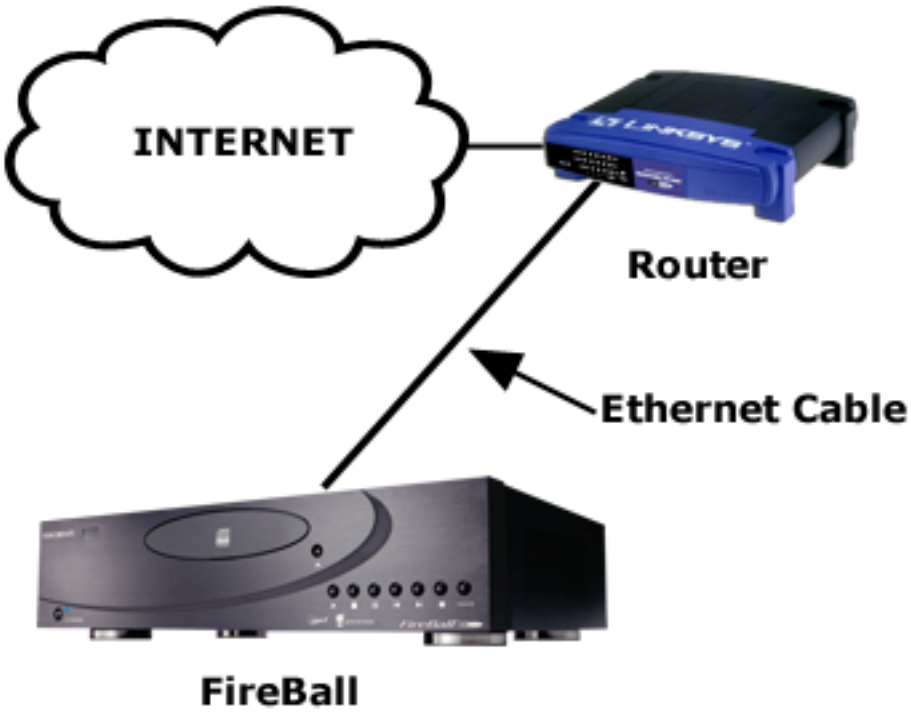
IR Connections

The direct IR input jack on the back panel of the FireBall is for controlling FireBall from a wired IR distribution system such as a Xantech system. This connection must be an IR signal with a 36kHz carrier using an 1/8” mono or stereo connector.

The IR input jack provides 12V power. This means that you can directly connect a 12V IR receiver (like the Xantech series 291 units) to the FireBall using a 1/8” stereo connector.

Ethernet Connections

The Ethernet jack on the back panel of the FireBall accepts any standard twisted pair CAT5 Ethernet cable. If you are connecting FireBall to a home network, you typically connect a standard Ethernet cable from your Ethernet router or hub to the FireBall.



There are different grades, or categories, of twisted-pair cabling. Category 5 is the most reliable and widely compatible, and is highly recommended. It runs easily with 10Mbps networks, and is required for 100Mbps networks. You can buy Category 5 cabling that is pre-made, or you can cut & crimp your own.

Category 5 cables can be purchased or crimped as either straight-through or crossed. A Category 5 cable has 8 thin, color-coded wires inside that run from one end of the cable to the other. Only wires 1, 2, 3, and 6 are used by Ethernet networks for communication. Although only four wires are used, if the cable has 8 wires, all the wires have to be connected in both jacks.

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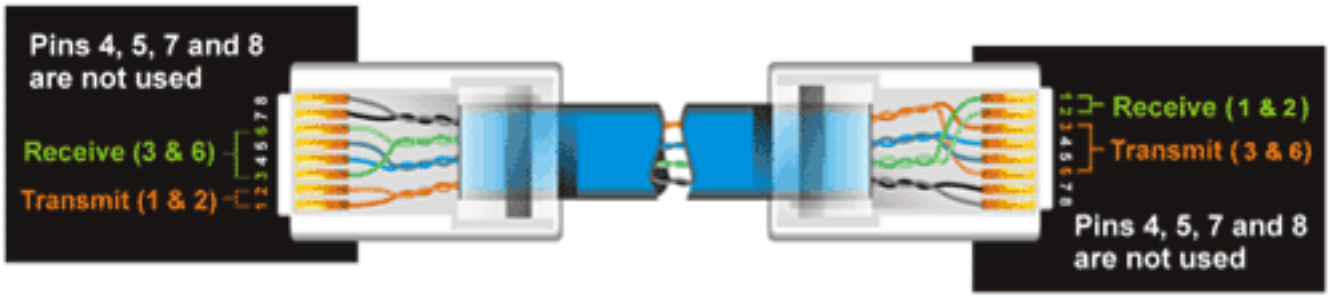
Straight-through cables are used for connecting computers to a hub. Crossed cables are used for connecting a hub to another hub (there is an exception: some hubs have a built-in uplink port that is crossed internally, which allows you to uplink hubs together with a straight cable instead).

In a straight-through cable, wires 1, 2, 3, and 6 at one end of the cable are also wires 1, 2, 3, and 6 at the other end. In a crossed cable, the order of the wires change from one end to the other: wire 1 becomes 3, and 2 becomes 6.

To figure out which wire is wire number 1, hold the cable so that the end of the plastic RJ-45 tip (the part that goes into a wall jack first) is facing away from you. Flip the clip so that the copper side faces up (the springy clip will now be parallel to the floor). When looking down on the coppers, wire 1 will be on the far left.

CAT5 cabling should not exceed 100 meters. The following drawing depicts the typical wiring scheme for CAT5. For more information about wiring an Ethernet network, please refer to the Linksys web site.

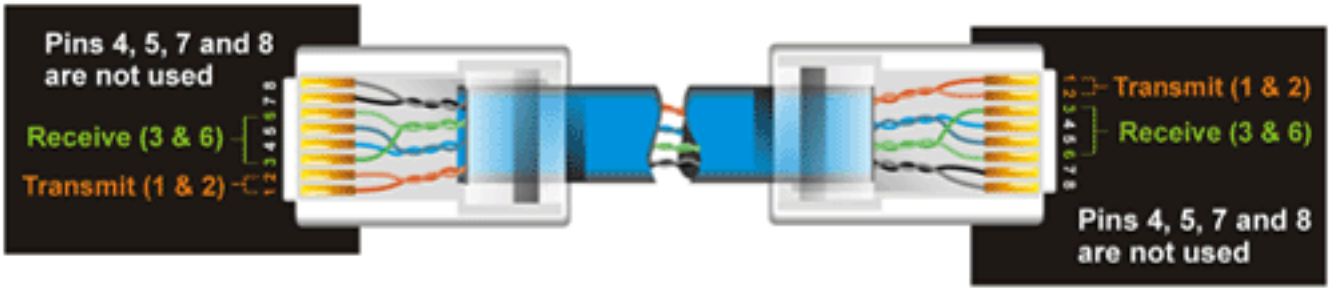


Pin number	Wire Color
Pin 1 ==>	Orange/White
Pin 2 ==>	Orange
Pin 3 ==>	Green/White
Pin 4 ==>	Blue
Pin 5 ==>	Blue/White
Pin 6 ==>	Green
Pin 7 ==>	Brown/White
Pin 8 ==>	Brown

Crossed-Over

Wire	Becomes
1	3
2	6
3	1
6	2

Pin number	Wire Color
Pin 1 ==>	Green/White
Pin 2 ==>	Green
Pin 3 ==>	Orange/White
Pin 4 ==>	Blue
Pin 5 ==>	Blue/White
Pin 6 ==>	Orange
Pin 7 ==>	Brown/White
Pin 8 ==>	Brown



Pin number	Wire Color
Pin 1 ==>	Orange/White
Pin 2 ==>	Orange
Pin 3 ==>	Green/White
Pin 4 ==>	Blue
Pin 5 ==>	Blue/White
Pin 6 ==>	Green
Pin 7 ==>	Brown/White
Pin 8 ==>	Brown

Straight-Through

Wire	Becomes
1	1
2	2
3	3
6	6

Pin number	Wire Color
Pin 1 ==>	Orange/White
Pin 2 ==>	Orange
Pin 3 ==>	Green/White
Pin 4 ==>	Blue
Pin 5 ==>	Blue/White
Pin 6 ==>	Green
Pin 7 ==>	Brown/White
Pin 8 ==>	Brown

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FireBall Networking: Beyond Ethernet

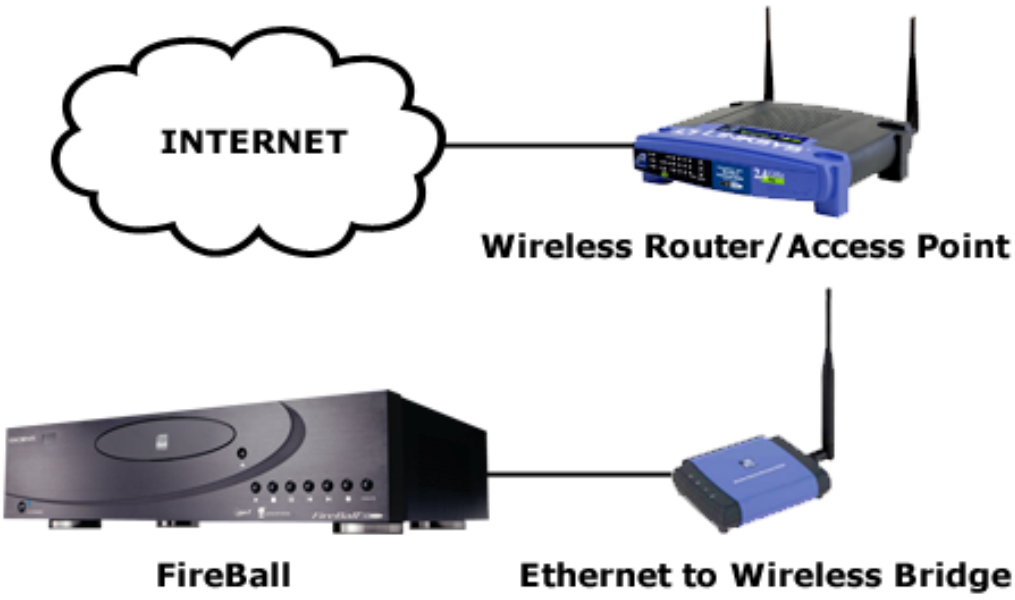
FireBall contains built-in Ethernet networking and optional external dialup modem support. In addition to these types of network connections, you may want to integrate FireBall into other networks such as 802.11 Wireless (WiFi), Powerline, or HomePNA (HPNA).

Although there are dozens of brands on the market, Escient recommends and supports D-Link and Linksys home networking products because of their wide availability and installed base within our market. The Linksys web site is an excellent source for information on building home networks.

Wireless Networking

Wireless Networking, commonly referred to as “WiFi” or 802.11a/b/g, is defined as a local area network that uses 2.4GHz radio signals to transmit and receive data over distances of a few hundred feet using the ethernet protocol.

FireBall can be added to a wireless home network using an external Ethernet to Wireless adapter such as the Linksys Wireless Ethernet Bridges. The Ethernet Bridge will “bridge” the gap between the FireBall’s Ethernet port and the home network’s wireless access point. When used with a broadband Internet connection, this networking configuration effectively converts the FireBall’s wired Ethernet signals to travel wirelessly to the home network’s wireless access point, then onto the Internet.



FireBall Connected to a Wireless Network

Be sure to use an adapter which supports the version of 802.11 (A, B, or G) that the user’s Wireless Access Point supports. Refer to the Access Point’s documentation for more information.

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Powerline Networking

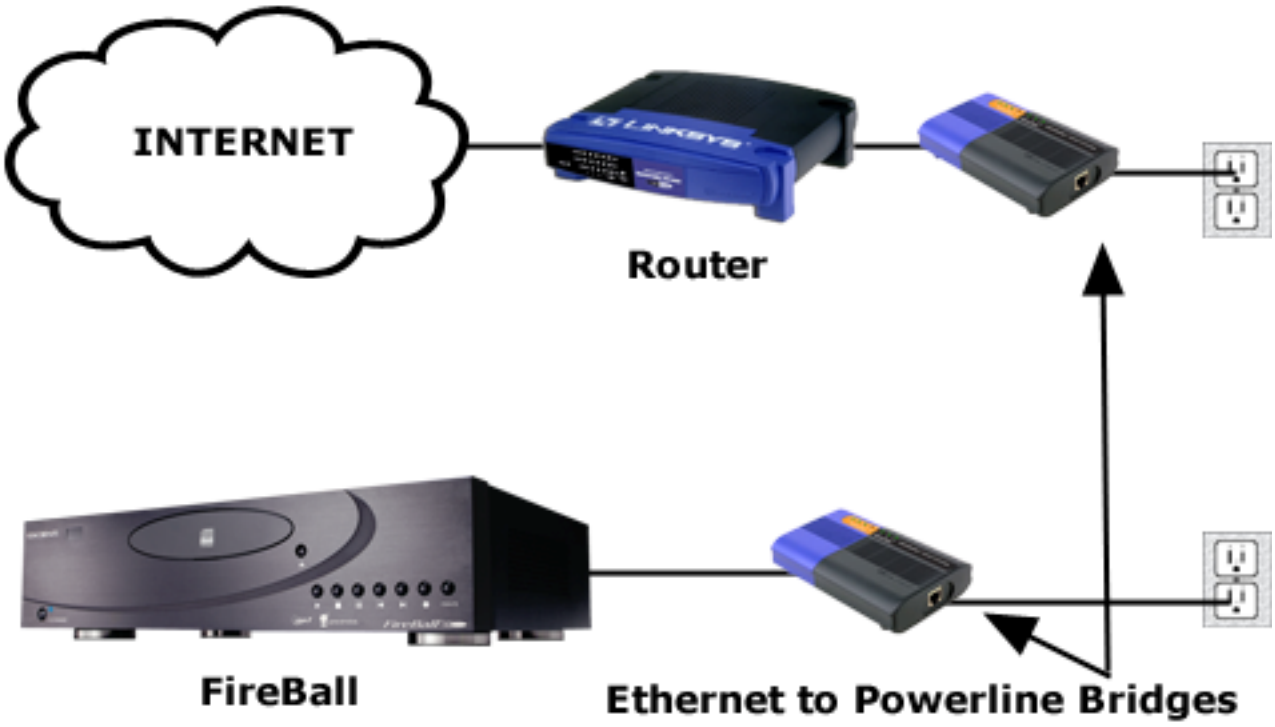
Powerline networking has existed in a few forms in the past, the lastest specification is called HomePlug and runs at 14Mbps. HomePlug uses your existing home electrical wiring to transfer data.

HomePlug does not interfere with existing electrical equipment or home automation devices like X-10, CEBus, and LONworks. HomePlug also encrypts all data with 56bit DES encryption to ensure that neighbors can not evesdrop on your network traffic.

Note: encryption is usualy not enabled by default and must be 'turned on' using software proided by the devices manufacturer.

The HomePlug specification incorporates a technology called PowerPacket. This new technology is what makes HomePlug different from the old powerline networks. PowerPacket eliminates noise from electrical appliances like hair driers and televisions plus it offers security. For more information on Powerline Networking, please visit the HomePlug Official Site

FireBall connects to a Powerline network using a Powerline to Ethernet Bridge. The Powerline to Ethernet Bridge will “bridge” the gap between the FireBall’s Ethernet port and the home Powerline network. When used with a broadband Internet connection, this networking configuration effectively converts the FireBall’s wired Ethernet signals to travel over the home’s Powerline network, then onto the Internet.



FireBall Connected to a Powerline Network

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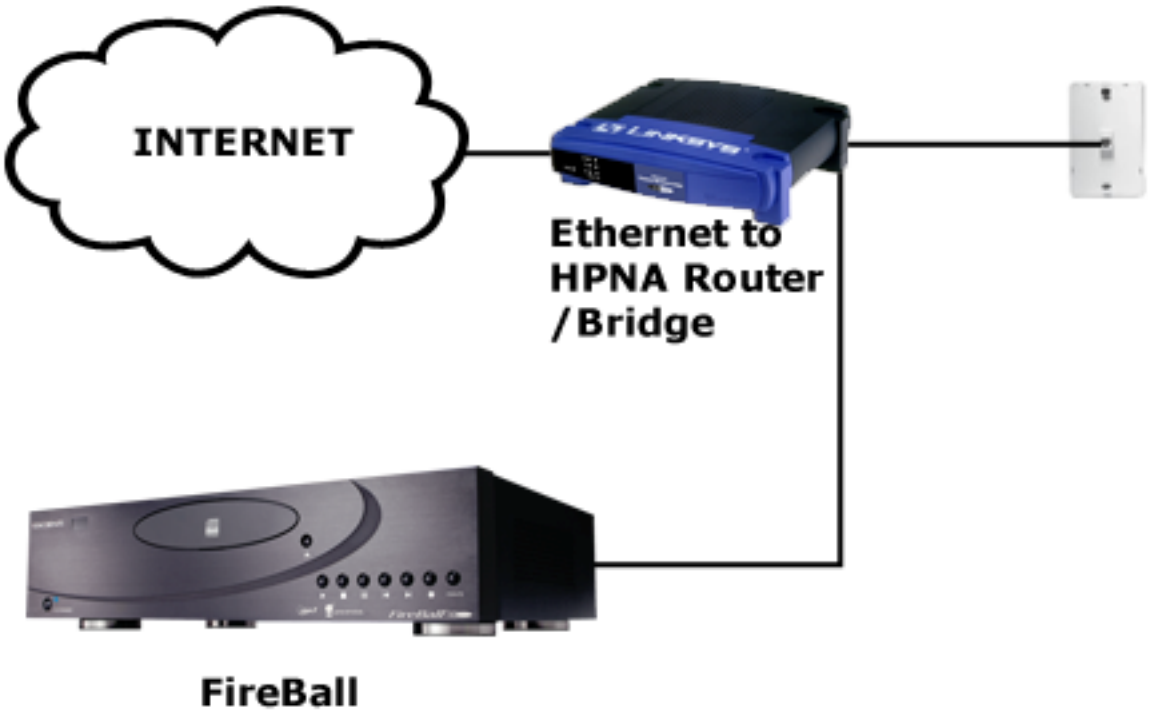
HPNA Networking

HPNA, sometimes called HomePNA or PhoneLine networking, uses existing phone lines to connect your computers. It does not interfere with voice operations or DSL on existing live telephone lines. HPNA networks, DSL and voice communications can happen on the SAME phone lines simultaneously.

HPNA 1.0 was met in the industry with excitement but limited success. 2.0 brought the speed up to a good level and brought the price down too! Since then HPNA 2.0 has been adopted by almost all of the home network manufacturers. Network adapters, routers and bridges are all available.

FireBall connects to an HPNA network using an HPNA to Ethernet Bridge. The HPNA to Ethernet Bridge will “bridge” the gap between the FireBall’s Ethernet port and the HPNA home phoneline network. When used with a broadband Internet connection, this networking configuration effectively converts the FireBall’s wired Ethernet signals to travel over the home’s phone line network, then onto the Internet.



FireBall Connected to an HPNA Network

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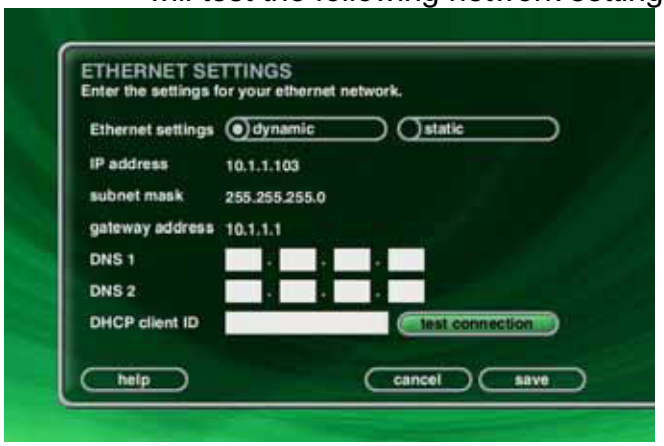
Registration

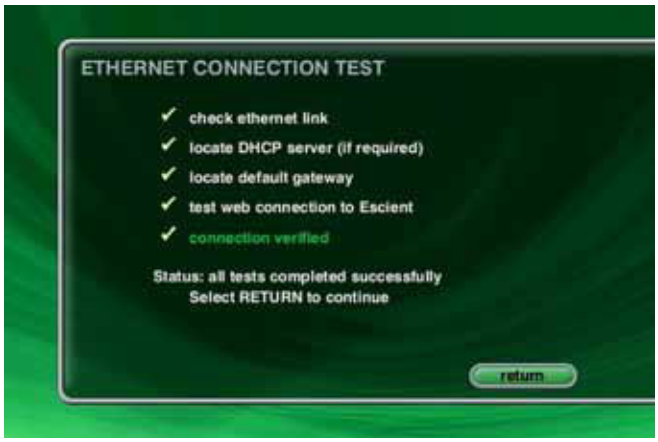
Registering your FireBall is accomplished automatically when you go through the Quick Start process described in the User's Manual. Registration includes properly configuring your FireBall for Internet access and then connecting to the Escient servers to register your serial number and download the latest Internet Radio stations.

If you experience difficulty completing the registration process in QuickStart, follow these guidelines to make sure you have all of the required information and that you can make the proper connection to your Internet Service Provider and the Escient Servers.

Testing the Ethernet Connection

1. Check the Ethernet Network Link - The green LED next to the FireBall's back panel Ethernet jack should be on when properly connected to an Ethernet network.
2. Press the Setup button on the remote.
3. Select the Network Menu.
4. Select Ethernet Settings
5. Select the "test connection" button. This will start the Ethernet Connection test which will test the following network settings:





   a. The ethernet link to your router or hub.
   b. The DHCP addressing if you selected Dynamic IP Addressing.
   c. The connection to your default Gateway (your route to the Internet).
   d. The connection between your router and the Escient server.

If any of these tests fail, check your ethernet wiring with the proper test equipment, make sure your router is properly configured as a DHCP router, and that you can access the internet using the same network connection using a PC.

Check with your ISP or network administrator if you need assistance determining whether or not you should use DHCP IP addressing. If you are going to use a static IP address, it must be in the proper range assigned to your subnet. Again, check with your ISP or network administrator before using a static IP address.

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Retail Demo Mode

FireBall has a **Retail Demo Mode** for use in retail display environments. The Retail Demo Mode (RDM) is a special screen saver that is activated during idle time. The RDM continuously displays key features and benefits of the FireBall product on the attached TV. Pressing any button on the remote will temporarily disable the RTD and allow the user to demo the product. After the specified idle time, the RDM will reactivate as the screensaver.

Follow these steps to enable the **Retail Demo Mode** in your FireBall display model:

1. Follow the Quick Start instructions to connect and register your demo FireBall.
2. When your FireBall is configured and you see the Music Guide, press the SETUP key on the remote.
3. Select the General menu.
4. Select the Screen Saver menu.
5. Select the Demo Mode option and the number of minutes to wait before displaying the Demo Mode screen saver.
6. Select the Save button.

- The RDM will be activated whenever the FireBall is idle for the specified period of time.
- Do not set the idle time too high as the possibility of screen burn is increased with certain types of displays, particularly “Plasma” type displays.

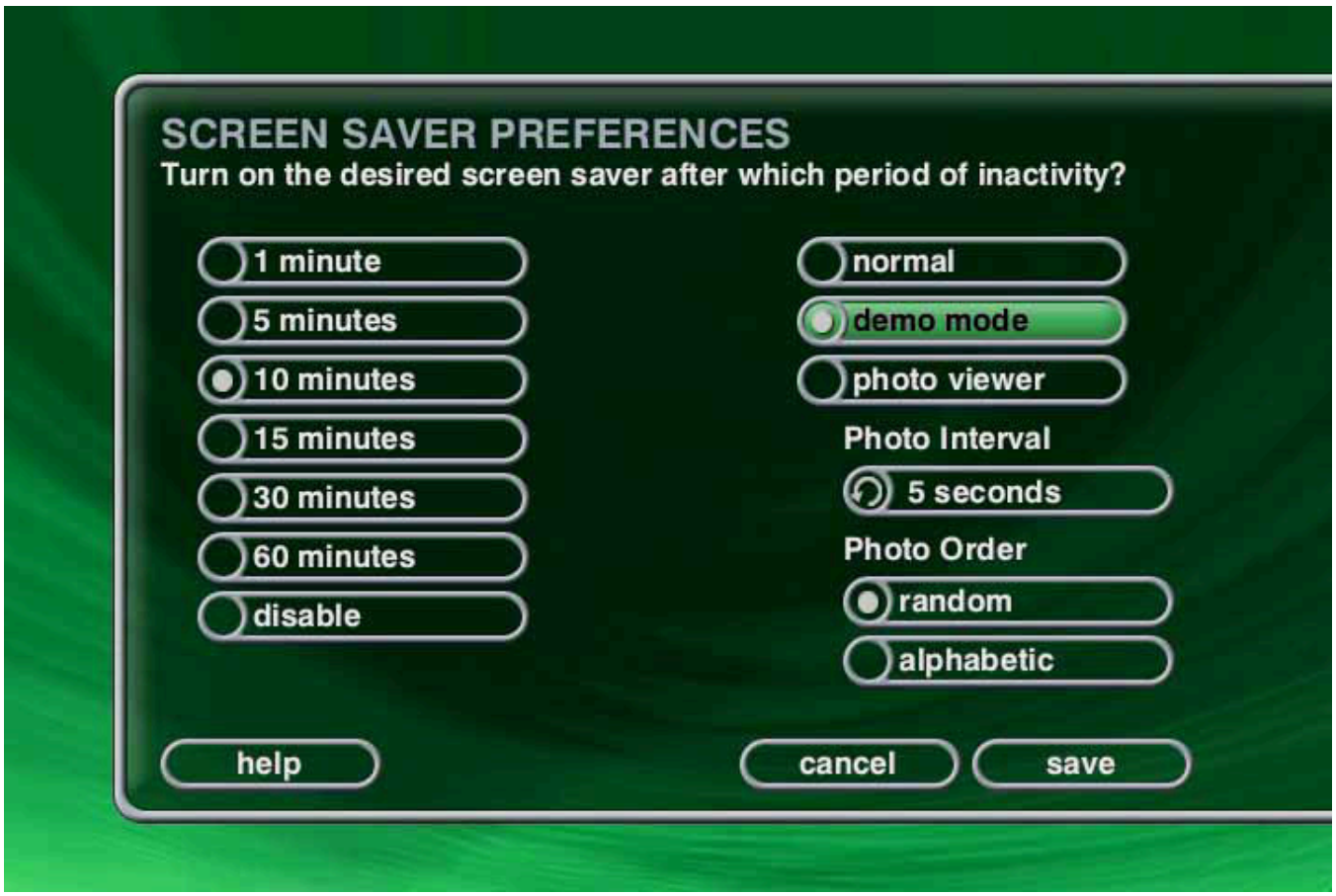

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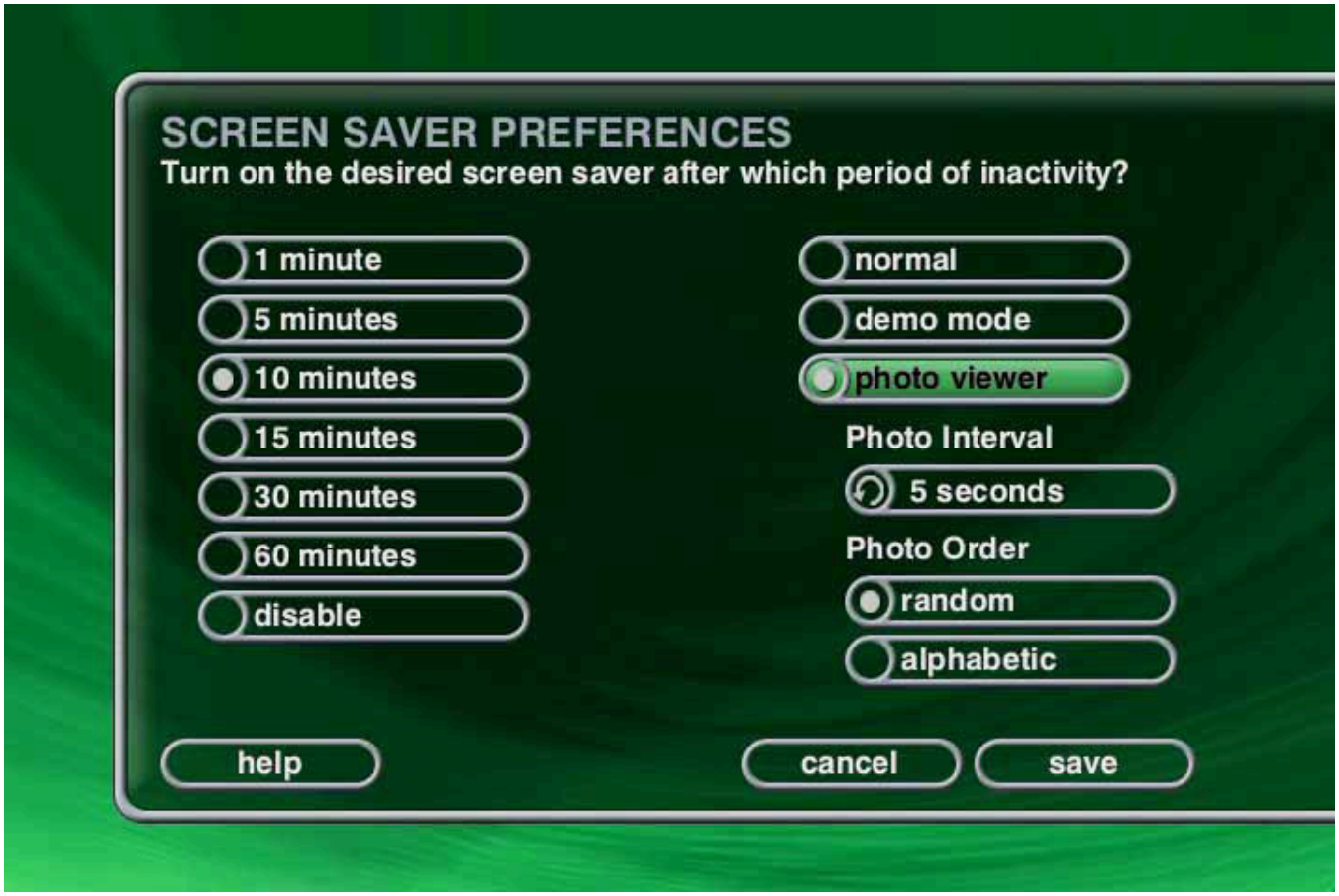
Photo Screen Saver

FireBall has a **Photo Screen Saver Mode** for displaying your own photos whenever FireBall is idle for a specified period of time. You can import your own photos into the **Photos** shared directory using Windows Networking. Photos should be 720x480 for 4:3 NTSC TVs and 640x360 for 16:9 widescreen TVs.

Follow these steps to enable the **Photo Screen Saver Mode** in your FireBall:

1. Press the SETUP key on the remote.
2. Select the General menu.
3. Select the Screen Saver menu.
4. Select the Photo Viewer option and the number of minutes to wait before displaying the next photo.
5. Select Random or Alphabetical ordering.
6. Select the Save button.

- The Photos Screen Saver will be activated whenever the FireBall is idle for the specified period of time.
- Do not set the idle time too high as the possibility of screen burn is increased with certain types of displays, particularly “Plasma” type displays.



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Custom Backgrounds

In addition to the Escient Classic user interface theme, the FireBall allows you to select a custom theme and select your own background images for each Guide, Player, Options, Setup, and Message screens. You can import your own background images into the **Backgrounds** shared directory using Windows Networking. Images should be 720x480 and saved in either jpg, gif, or png formats.

Follow these steps to select a custom background on your FireBall:

1. Press the SETUP key on the remote.
2. Select the General menu.
3. Select the User Interface Skins menu.
4. Select the Custom Theme and Select the Save button.
5. After the Custom Theme is installed, you will see the Custom Backgrounds Select screen.
6. Select the screen you want to set the background for (Music Guide, Music Player, Music Option, etc.…
7. Scroll down the list and highlight an image. A preview will be displayed to the right of the list.
8. Press the Select key on the remote to select the desired image.
9. Repeat steps 6 – 8 for each screen you want to customize.
10. Select the Save button when you are done to return to the Setup menu.

Note: Some backgrounds look better than others. In general, backgrounds with darker colors and few small details are better. Experiment with the built in background images, your favorite photos, or download more custom image backgrounds from the Escient web site at www.escient.com/support.

USER INTERFACE SKINS
Select a user interface skin to change the overall graphics theme.
The image shown is an example of the currently highlighted item.
The 'custom' button allows you to customize backgrounds further
for Guide, Player, Setup, etc. Re-skinning takes about 15 sec.
✓ custom
escient classic
help
cancel
save

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Peer to Peer Music Sharing

FireBall contains a special music sharing feature that allows two FireBall Music Servers located on the same network to share their music library into two independent zones. The Music Guide from the second FireBall is merged into the Music Guide of the first FireBall to create one seamless Music Guide for browsing and playing all of your music. This effectively can double the capacity of your FireBall using one FireBall as the master and one as a second zone or “slave” server.

You can connect any combination of two FireBall SE, E2, or DVDM Music Servers that have been upgraded to the 2005 FireBall Features Package.

Follow these steps to get your FireBall SE connected to another FireBall SE, E2, or DVDM Music Server:

1. Press the SETUP key on the remote.
2. Select the Network menu.
3. Select the Remote Server Connection menu.
4. Select one of the available FireBall servers from the server list.
5. Select the Save button to save your selection.

When you return to the Music Guide you will have access to all your music from both FireBalls merged into one Music Guide. The “Location” field in the Music Guide will show you where each music title is located.

Repeat the above steps using the other FireBall to access the first FireBall’s music from the second FireBall.

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Networked Audio using FireBall Music Clients

Servers

A FireBall Server is a Fireball media management system that is capable of “serving” media to other FireBalls over a network. The FireBall is a considered a “server” product.

Clients

A FireBall Client is a FireBall that can play media from a FireBall Server over a network. Currently there are three different FireBall products that can play media from FireBall servers:

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

FireBall MP-150

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

FireBall DVDM-100

Limitations

- Client-Server networking is limited to the same local subnet. You can not stream over the Internet unless you have setup a VPN between multiple locations.
- Only MP3 and FLAC audio files can be streamed to clients. You can’t stream CDs from the internal drive.
- Playlists that contain only MP3s files will be available on the clients.
- Playlists that contain MP3s files and non-streamable tracks will NOT appear on the clients.
- You may have an unlimited number of clients on the network, but you can only stream to 4 clients simultaneously.
- Internet Radio can not be streamed (but it is available on most standalone products).

Locating the FireBall Clients and Servers

Central

If you locate your FireBall clients and servers in a central location such as an equipment or utility room, you will need to use a third party audio/video distribution system to deliver sound and picture to each room. This type of installation allows great flexibility for delivering music, movie, and Internet radio to every room of the home or office and provides the professional installer with tools for almost any installation.

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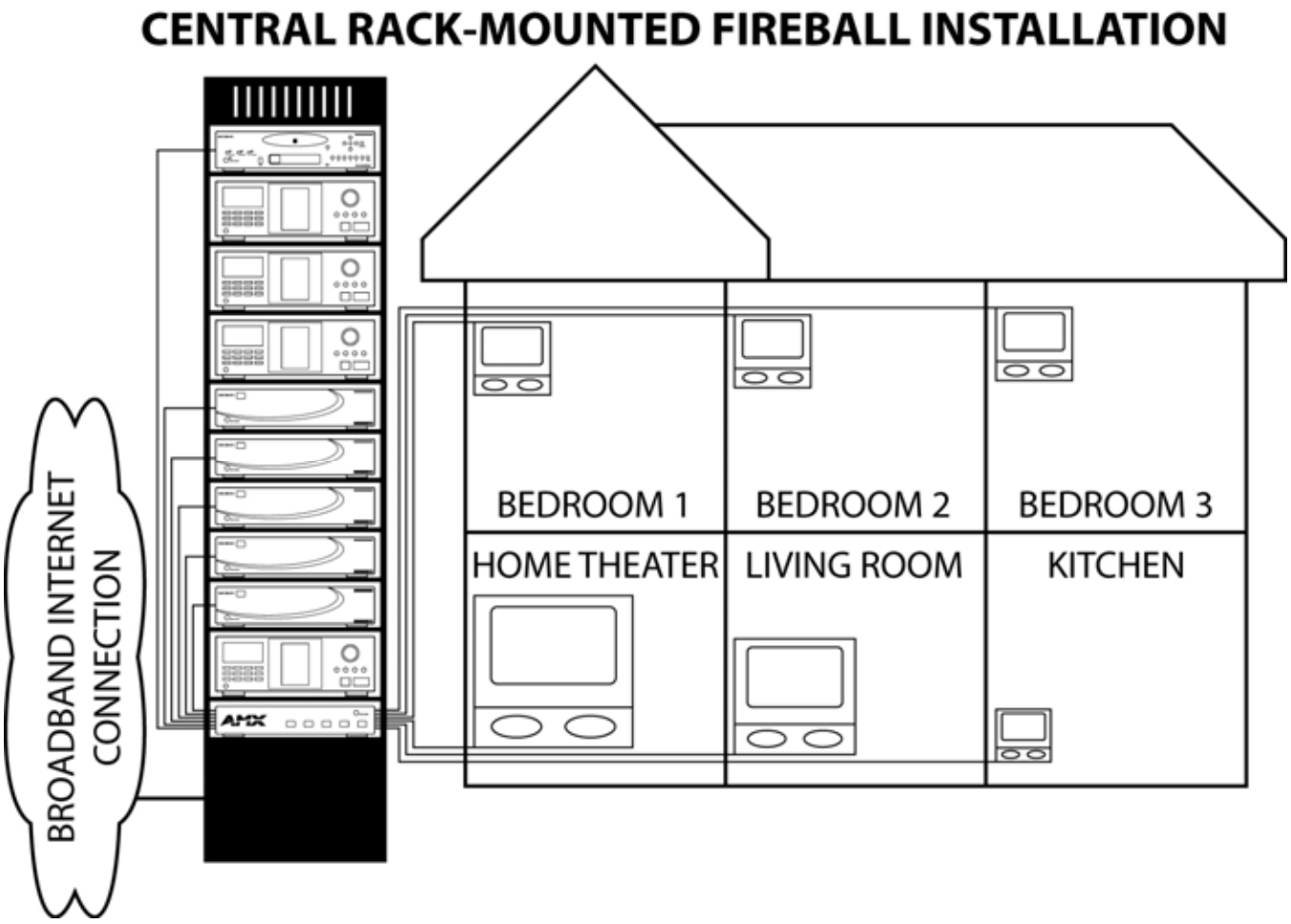

FireBall is built from the ground up with many features that allow you to centrally locate and remotely control your FireBall clients and servers, such as:

- Direct IR input
- Wireless IR remote and Keyboard options
- Support for 4 different IR banks (4 IR zones)
- Templates for integration into many third party wired and wireless IR distribution systems
- Philips and Marantz Pronto remote control templates

Distributed

A distributed FireBall installation means that your FireBall Servers and Clients are physically distributed or located in different rooms. Distributed FireBalls communicate over a wired or wireless network to share access to your media.

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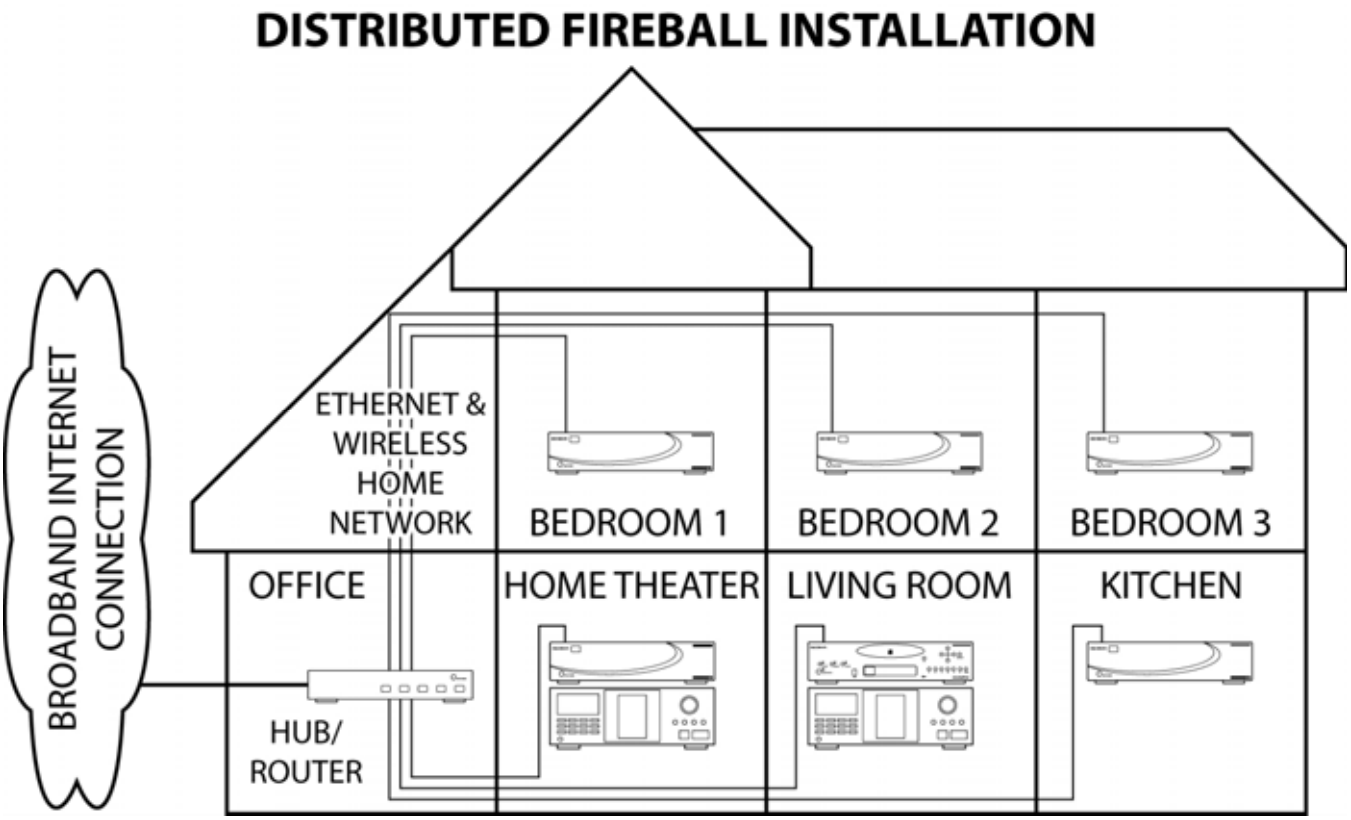

The biggest advantage of a distributed client-server system over a central system is that everything you need is built into FireBall. Networking, zoned IR, independent high-quality audio and video feeds, as well as support for an unlimited number of rooms or zones using standard ethernet wiring. (Note: only 4 clients can stream from the same server at one time).

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Configuring a FireBall Server

Every FireBall capable of server functions is automatically enabled to serve MP3 and FLAC audio whenever it is plugged in and properly configured for your network.

It is recommended that you give each of your FireBall servers a unique name that describes it's location using the **SERVER SETTINGS** screen which can be accessed from **Setup/Network /Server Settings**. Names like "LivingRoom", "HomeTheater", "MyMusicServer" are all good examples.

Do not use spaces in the FireBall Server Name.

SERVER SETTINGS
Enter a name for your FireBall server. This is the name you will see when seleting a server from FireBall-MP players, wireless web pads and web browsers.
FireBall name:
MyFireBall
Enter a password to limit access to FireBall's built-in web server or leave it blank if you do not want to use a password. There is no 'user name' when connecting to a FireBall server using a web browser.
Web Password:
help
cancel
save

FireBall Server Name screen

Optionally, you can assign a password for web access to the FireBall. This password is independent from the Parental Controls password and is used to limit access to FireBall's web server from any standard web browser on your network. If a password is entered here, the user will be asked to enter it when connecting to the FireBall from their PC. This password is provided to protect access to your FireBall through the standard HTTP port 80 on your subnet.

Configuring a FireBall Client

Networking

Each FireBall client must be on the same network as the server. This document will assume that you have properly connected your FireBall client to the same network as your FireBall server.

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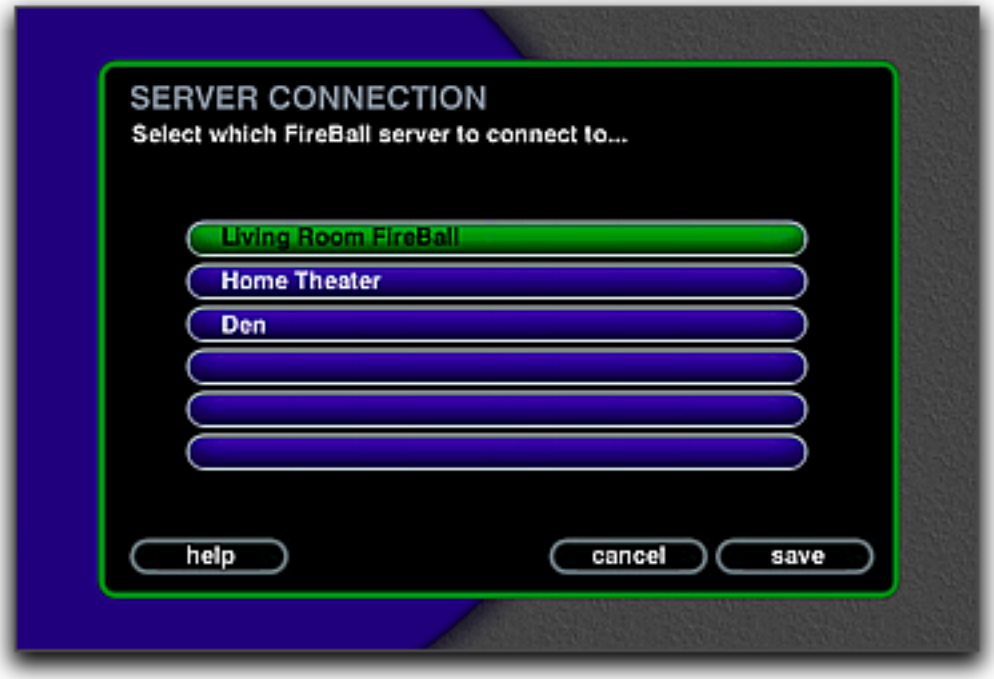
Please refer to the ***HomeNetworkingPrimer*** support document on the Escient web site for more information about home networking.

Server Selection

FireBall clients will automatically select the first server it sees on the network and connect to it upon startup.

If you have more than one server on your network, you can manually select a different server using the **Server Connection** screen which can be accessed from **Setup/Internet Configuration/Server Connection**.



Select Server Connection screen on FireBall Clients

The Server Connection screen displays a list of FireBall Servers found on your network by their default or user defined “FireBall Name”.

Once you select a server and save your selection, press MUSIC to view the Music Guide on the client. In a few moments, the Music Guide will display the contents of the FireBall server. You can then select and play anything from the Music Guide just as you would from a single FireBall.

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Backup and Restore

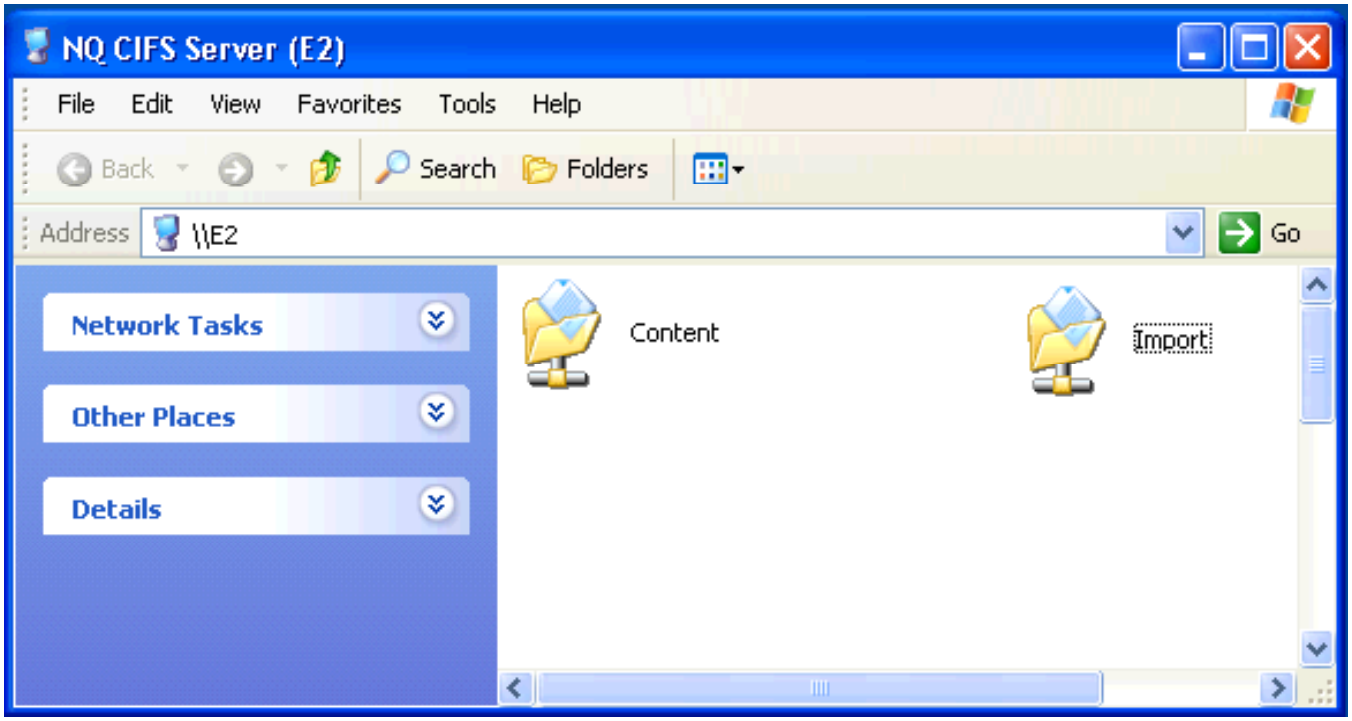
FireBall Music Backup

It is possible to backup and restore the music contents of a FireBall using the CIFS or "Windows" Networking feature. Backup is accomplished by mounting the FireBall onto your PC or Mac desktop and using your computer's backup software.

You can also backup the music files to any standard media which your PC supports, such as: DVD+/-R/W, CD-R/RW, or external hard drive.

There are several methods and tools for backup your FireBall's music content. You will have to determine which method is best for you and your customers. One such method involves attaching an external FireWire or USB hard drive to your PC and backing up your Content directory by using a simple drag and drop from the Content directory to the external drive or using more elaborate features provided by a third party backup software product such as Dantz Retrospect. A free trial of this software is provided by Dantz for both Mac and Windows users. Please visit the Dantz web site for more details:

http://www.dantz.com/en/products/personal.dtml



Only the music files are available in the Content folder. Playlists, Setup information, and Internet Radio stations are NOT available for backup at this time.

A full 300 GB backup could take 2.5 days to complete using a standard 10/100 baseT Ethernet network. It is not recommended that you use your FireBall to play music while a backup is in progress as this will cause the backup to take longer to complete.

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FireBall Music Restore

You can restore music to a FireBall using the same method used for importing audio files into a FireBall. Restore and Import both use the CIFS Networking feature to add audio files to a FireBall. Simply drag your music files to the Import directory and let FireBall import the audio files.

Note: This may take several days for a large music collection!

Upon Import, FireBall will rebuild the internal database based on the music file's ID3 tag information.

About ID3 Tags

All MP3 and FLAC files should have the proper ID3 tags in each file in order for FireBall to properly add each music file to it's internal Library.

The following ID3 tag formats are supported by FireBall:

- ID3v1.0
- ID3v1.1
- ID3v2.2.0
- ID3v2.3.0

Use an MP3 Tag Editor (such as iTunes) to change the ID3 tags to a supported format before importing into FireBall. If your MP3 files originated from your FireBall, they already have the proper ID tags.

Cover art will be imported into FireBall as long as the cover image is properly embedded into the ID3 tag. Again, use an MP3 Tag Editor on your computer to add cover art images to each MP3 file prior to importing.

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Advanced Utilities

FireBall has several Advanced Utilities which are intended for use by experienced installers or when instructed by Escient Tech Support engineers. The Advanced Utilities include:

- Restore Factory Defaults
- Rebuild Databases
- Hardware Re-registration
- Lookup All Covers

To reduce the possibility that these tools are inadvertently accessed by inexperienced users, the Advanced Utilities menu is hidden from the user.

To access the Advanced Utilities Menu:

1. Go to the Main Setup Menu
2. Enter “8020” on the FireBall remote control.
3. The Advanced Utilities Menu is displayed.

Advanced Utilities Menu

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Restore Factory Defaults

The Restore Factory Defaults feature is used to restore the FireBall system to its original factory settings. This allows you to completely erase all user preferences and settings and reconfigure the unit for the first time.

Since this is a destructive feature, two levels of confirmation dialogs are used to confirm that you really wants to do this.

Once the Restore Factory Defaults feature is initiated, the user will not be able to stop the process and all of their settings, music, and preferences will be deleted and the FireBall will be restored to it's original software version. You should perform a manual Software Update after a Restore Factory Defaults to update the FireBall to the most recent software version.

Force Re-Registration

The Re-registration function will reset the internal registration to the default settings, force the unit to reboot, and run the Quick Start configuration software.

Do not perform a re-registration unless instructed to do so by Escient Technical Support!

Upon power up, you must complete the Quick Start registration process again, which will in turn cause the unit to re-register with the Escient Internet servers, at the end of the process. An internet connection is required to complete the re-registration process.

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Library Index Rebuild

The Library Index utility is used to rebuild the database index files in the unlikely event that your database becomes corrupt by a power failure or other unknown cause. FireBall will go through each database entry for movies, music, and radio and reconstruct the correct indices.

- You should only run this utility when instructed to do so by Escient technical support personnel.
- Once Rebuild Databases starts, you must wait until it completes, which could be several hours for a large media collection.

Rebuild Databases Progress Screen

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Lookup All Covers

The Lookup All Covers feature is to be used by customer service in the unlikely event that a system failure causes the cover art links to become corrupt. You will be asked to confirm the execution of this feature because it performs a permanently destructive action by replacing every custom cover, then attempts to download new covers over the Internet connection.

Lookup All Covers Screen

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Remote Control Programming

The FireBall remote is a “Universal Remote” which can control up to eight different components including four FireBall products. The FB1, FB2, FB3, and FB4 keys are used to control FireBall products while the TV, CBL, RCV, and DVD keys can be setup to control other devices.

Controlling One or More FireBalls

The FB1, FB2, FB3, and FB4 keys can be programmed to control multiple FireBalls products including DVDM and E2-300 products. This feature is also useful for controlling multiple FireBalls located at the same physical location or on the same IR distribution system.

There are two steps to controlling multiple FireBall products:

1. Setup the remote to transmit the corresponding code bank
2. Setup the FireBall to receive or listen for a specific code bank.

Setting up the remote to transmit one of the four code banks is as easy as pressing the FB1, FB2, FB3, or FB4 keys. Pressing one of these keys selects the one of the four FireBall code banks. Next you need to tell each FireBall which bank you want it to listen to. All FireBalls ship from the factory assigned to listen for codes on the FB1 code bank.

Follow these steps to control a FireBall on the FB2 code bank.

1. Press the FB1 key on the remote to control a FireBall on the default bank.
2. Press the SETUP key to display the Setup Menu.
3. Select the External Control Menu.
4. Select the IR & Serial Menu.
5. Select the IR Remote Control Menu.
6. Select the FB2 radio button to tell the FireBall to listen to the FB2 code bank.
7. Select the SAVE button on the screen.
8. You will be instructed to press the FB2 key on the remote, then select the OK button.

You have set the FireBall to listen to the FB2 code bank. Repeat these steps to tell the FireBall to respond and listen to any of the four code banks.

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Controlling Other Components

Code Select Mode

Follow these steps to control a device on the TV, CBL, RCV, and DVD keys:
(For this example, we'll program the TV key)

1. Turn on the TV using the TV's front panel.
2. Press the TV key on the FireBall remote.
3. Press and hold the CODE SET key until the LED blinks twice, then release.
4. Locate the Manufacturer's Code for your brand of TV (see the end of this chapter)
5. Enter the first four-digit code for your TV using the numeric keys on the FireBall remote.
6. The LED on the remote should blink twice. If the LED did not blink twice, then repeat steps 2 through 5.
7. Aim the Remote at the TV and press PWR key once. It should turn off. If it does not respond, repeat steps 2-5, trying each code for your brand until you find one that works.

Repeat steps 1 through 7 for each component you want the Remote to control on the TV, CBL, RCV, and DVD keys.

Code Scan Mode

If your device does not respond to the Remote after trying all codes listed for your brand, or if your brand is not listed at all, try scanning for your code.

Follow these steps to scan for a code for your TV:

1. On the Remote, press TV once.
2. Press and hold CODE SET until the LED blinks twice, then release CODE SET.
3. Enter 9 - 9 - 1. The LED will blink twice.
4. Aim the remote control at the TV and slowly alternate between pressing PWR and TV. Stop when the TV turns off. NOTE: In the scan mode, the remote will send IR codes from its library to the selected device, starting with the most popular code first.
5. hen you find a working code, press CODE SET once to lock in the code.

To search for the codes of your other components, repeat steps 1 through 5, but substitute the appropriate key (TV, CBL, RCV, DVD) for the component that you are searching for.

Code Check Mode

If you set up the remote using the Code Scan Mode, you may need to find out which four-digit code is operating your equipment.

Follow these steps to find which code is operating your TV:

1. Press the TV key.
2. Press and hold CODE SET until the LED blinks twice, then release CODE SET.
3. Enter 9 - 9 - 0. The LED will blink twice.
4. To view the code for the first digit, press 1 once. Wait 3 seconds, count the LED blinks (e.g., 3 blinks = 3) NOTE: If a code digit is "0", the LED will not blink.
5. Repeat step 4 three more times for remaining digits. Use 2 for the second digit, 3 for the third digit, and 4 for the fourth digit.

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To check for the codes of your other components, repeat steps 1 through 5, but substitute the appropriate key (TV, CBL, RCV, DVD) for the component you are checking.

To exit Code Check Mode, press the CODE SET key once.

Re-Assigning Device Keys

The Remote can be set up to control a second TV, receiver or any combination of eight home entertainment components. For example, to have the Remote control a TV, a Cable Converter, and two DVD players, you can reassign an unused SOURCE key to operate the second DVD player.

Follow these steps to re-assign the CBL key to control a second DVD player:

1. Press and hold CODE SET until the LED blinks twice, then release CODE SET.
2. Enter 9 - 9 - 2. The LED will blink twice.
3. Press the DVD key, then press the CBL key.
4. The CBL key is now ready to be programmed for a DVD player.

To reassign other device keys, repeat steps 1 through 4 by substituting the key sequence from the below chart for the most popular components:

When a reassignment is done, the LED will blink twice to confirm your choice. At that time, you will need to program the Remote to control the new component, following the instructions above.

The following devices can be assigned to the TV, CBL, RCV, and DVD source mode buttons on the Escient remote.

Source Button	Device Assignment
TV	TV
CBL	Cable, Video Accessories, Satellite, DSS
RCV	Amplifier, Tuner, Phono, Misc. Audio, CD, Home Automation, MD
DVD	VCR, Audio Cassette, DVD, LDP, DAT, PVR

Changing the Volume Lock

The remote is preset to control volume through your TV while in the TV, CBL, and DVD modes. However, in an Audio mode (i.e. RCV, FB1, FB2, FB3, FB4), you have separate control of your audio component's volume.

Follow these steps to control the volume of the component instead of the TV.

1. Press and hold CODE SET until the LED blinks twice, then release CODE SET.
2. Enter 9 - 9 - 3 and then press any mode key once (except TV). The LED will blink twice.
3. Now, whenever you press VOL +, VOL –, or MUTE, the volume will be controlled by the current mode.

Follow these steps to control the volume of the TV when in other modes (factory default).

1. Press and hold CODE SET until the LED blinks twice, then release CODE SET.
2. Enter 9 - 9 - 3 and then press TV. The LED will blink twice.

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3. Now, whenever you press VOL +, VOL –, or MUTE on the Remote, volume will be controlled by your TV.

Programming the Source Buttons to Control a Legacy FireBall Product

The FireBall remote can also be programmed to control a single FireBall H, E-40, E-120, MP-100 or TuneBase 200. Any of the eight source buttons can be programmed to control one of these FireBall products.

Follow these steps to control a legacy FireBall Product:

1. Press the source button to be programmed.
2. Press & Hold the “Code Set” button on the remote until the LED flashes twice.
3. Enter “987” using the remote’s numeric keypad. The LED should flash twice again.
4. Enter “0086”. The LED will again flash twice indicating the programming was successful.

Note: This programming feature sets one of the source buttons on the FireBall remote to emulate the **FB** button on the legacy FireBall product remote, therefore, you must set the legacy FireBall device to use the “**FB**” source button within it’s Setup/Utilities/IR Remote menu.

Resetting the FB Source Buttons

The FB1, FB2, FB3, and FB4 source buttons are preprogrammed at the factory with the correct codes to control four FireBall products. If you changed these buttons to control other devices, you will have to reset the FB Source buttons back to the original codes in order to control a FireBall again.

Following steps to program these buttons back to their factory states:

1. Press the FB1, FB2, FB3, or FB4 source button to be re-programmed.
2. Press & Hold the “Code Set” button on the remote until the LED flashes twice.
3. Enter “987” using the remote’s numeric keypad. The LED should again flash twice.
4. Enter the factory reset code which corresponds to the FB button being reset:
    - “0082” for FB1
    - “0083” for FB2
    - “0084” for FB3
    - “0085” for FB4
5. The LED will again flash twice indicating the programming was successful.

Repeat these steps for each FireBall in your system, selecting a different FB button for each.

Using the Macro key

The Macro key is used to enter a command sequence of two or more IR commands. Macros are used to directly access any title, group, or station from the wireless keyboard, remote control, or an external IR control system.

Direct Media Access IR Keyboard Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, M, [play mode number], Enter

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Direct Artist-Title	Macro, A, [artist-title access number], Enter
Direct Movie Title	Macro, V, [movie title access number], Enter
Direct iRadio Station	Macro, R, [iRadio access number], Enter
Direct Disc	Macro, C, [changer number], D, [disc number], Enter
Direct Track	Macro, T, [track number], Enter
Direct Playlist	Macro, P, [playlist access number], Enter
Direct Group	Macro, G, [group access number], Enter

Direct Media Access IR Remote Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, 1, [play mode number], Enter
Direct Disc	Macro, 2, [changer number], Macro, [disc number], Enter
Direct Artist-Title	Macro, 3, [artist-title access number], Enter
Direct Group	Macro, 4, [group access number], Enter
Direct Movie Title	Macro, 6, [movie title access number], Enter
Direct Playlist	Macro, 7, [playlist access number], Enter
Direct Track	Macro, 8, [track number], Enter
Direct iRadio Station	Macro, 9, [iRadio access number], Enter

Next and Previous IR Definitions

Function	Multi-Key Combinations
Next Artist-Title	Next
Prev Artist-Title	Prev
Next Track	>>
Prev Artist-Title	<<
Next Group	CTRL + Next or Macro, Next
Previous Group	CTRL + Prev or Macro, Prev

The direct access numbers are available for all music and movie titles, playlists, groups, and radio stations. To view these numbers, press SETUP then select the UTILITIES menu and then VIEW DIRECT IR NUMBERS.

Note: If you do a lot of editing to your music and movie collection, these numbers may change. If you experience trouble with the Macro key feature, please check that the direct IR numbers are still correct under SETUP.

Example 1: Use the keyboard to play disc 14 in changer 1.
Press: MACRO, C, 1, D, 1, 4, ENTER

Example 2: Use the keyboard to play playlist number 5
Press: MACRO, P, 5, ENTER

Example 3: Use the remote to play disc 14 in changer 1.

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Press: MACRO, 2, 1, MACRO, 1, 4, ENTER

Example 4: Use the remote to play playlist number 5.
Press: MACRO, 7, 5, ENTER

Example 5: Use the remote to play the movie number 123.
Press: MACRO, 6, 1, 2, 3, ENTER

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Manufacturer IR Codes

AMPLIFIER CODES

GE 0078
Harman/Kardon 0892
JVC 0331
Marantz 0892
Optimus 0395
Philips 0892
Polk Audio 0892
Realistic 0395
Sony 0689
Soundesign 0078
Victor 0331
Wards 0078
Yamaha 0354

CABLE BOX CODES

ABC 0003, 0017
Americast 0899
Bell South 0899
General Instrument 0276, 0476, 0810
GoldStar 0144
Hamlin 0009, 0273
Jerrold 0003, 0276, 0476, 0810
Memorex 0000
Motorola 1106
Pace 0237
Panasonic 0107, 0000
Paragon 0000
Philips 0305, 0317
Pioneer 0144, 0533, 0877
Pulsar 0000
Quasar 0000
Regal 0273, 0279
Runco 0000
Samsung 0144
Scientific Atlanta 0017, 0477, 0877
Starcom 0003
Toshiba 0000
Zenith 0000, 0525, 0899

CD PLAYER CODES

Aiwa 0157
Burmester 0420
California Audio Labs 0029
Carver 0157, 0179
DKK 0000
Denon 0003, 0873
Emerson 0305
Fisher 0179
Garrard 0420
Genexxa 0032, 0305
Harman/Kardon 0157, 0173
Hitachi 0032
JVC 0072
Kenwood 0028, 0190, 0826, 0037, 0626, 0681
Krell 0157
LXI 0305
Linn 0157
MCS 0029
MTC 0420
Magnavox 0157, 0305
Marantz 0157, 0626, 0029
Mission 0157
NSM 0157
Onkyo 0101, 0868
Optimus 0032, 0468, 0420, 0179, 0305, 1063, 0000, 0037,0145
Panasonic 0029
Parasound 0420
Philips 0157, 0626
Pioneer 0032, 0468, 0305, 1062, 1063
Polk Audio 0157
Proton 0157
QED 0157
Quasar 0029
RCA 0053, 0032, 1062, 0468, 0305, 0179
Realistic 0179, 0420
Rotel 0157, 0420
SAE 0157
Sansui 0157, 0305
Sanyo 0179
Scott 0305
Sears 0305
Sharp 0037, 0861
Sherwood 1067
Sonic Frontiers 0157
Sony 0000, 0490
Soundesign 0145
Tascam 0420
Teac 0420
Technics 0029
Victor 0072
Wards 0053, 0157
Yamaha 0036, 0888

HOME AUTOMATION CODES

GE 0240
One For Al 0167
Radio Shack 0240
Security System 0167
Universal X10 0167
X10 0167

VIDEO CODES

Panasonic 1120
Pioneer 1010
Sensory Science 1126
Sharp 1010

RECEIVER CODES

ADC 0531
Aiwa 0121, 1405, 1089
Capetronic 0531
Carver 1089, 1189
Denon 1160, 1104
Harman/Kardon 0110
JBL 0110
JVC 0074
Kenwood 1027, 0186, 1313, 1569, 1570
MCS 0039
Magnavox 1089, 0531, 1189
Marantz 1189, 1089, 0039
Onkyo 0135
Optimus 1023, 0186, 0531, 0670
Panasonic 0039, 1518
Philips 1089, 1189, 1269
Pioneer 0150, 0531, 0630, 1023
Proscan 1254
Quasar 0039
RCA 1254, 0531, 1023
Sansui 1089
Sharp 0186
Sony 1158, 1058, 1258
Soundesign 0670
Sunfire 1313
Technics 0039, 1308, 1518, 1309
Thorens 1189
Victor 0074
Yamaha 0176, 0186, 1176

SATELLITE CODES

AlphaStar 0772
Chaparral 0216
Echostar 0775, 1005
Expressvu 0775
GE 0566
General Instrument 0869
HTS 0775
Hitachi 0819
Hughes Network Systems 0749, 1142, 1749
JVC 0775
Magnavox 0722, 0724
Memorex 0724
Mitsubishi 0749
Next Level 0869
Panasonic 0247, 0701
Philips 1076, 1142, 0722, 0724, 0749
Proscan 0392
RCA 0566, 0392, 0143, 0855
Radio Shack 0869
Samsung 1109
Sony 0639
Star Choice 0869
Toshiba 0749, 0790
Uniden 0724, 0722
Zenith 0856

TELEVISION CODES

AOC 0019, 0030
Admiral 0093, 0463
Aiko 0092
Aiwa 0701
Akai 0030
Alaron 0179
America Action 0180
Anam 0180
Audiovox 0092, 0180, 0451, 0623
Baysonic 0180
Belcor 0019
Bell & Howell 0016, 0154
Bradford 0180
Brockwood 0019

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Broksonic 0236, 0463
CXC 0180
Candle 0030, 0056
Carnivale 0030
Carver 0054
Celebrity 0000
Cineral 0451, 0092
Citizen 0056, 0030, 0060, 0092
Concerto 0056
Contec 0180
Craig 0180
Crosley 0054
Crown 0180
Curtis Mathes 0060, 0030, 0016, 0047, 0051, 0054, 0056, 0093, 0145, 0154, 0166, 0451, 1147, 1347
Daewoo 0092, 0623, 0019, 0624, 0451
Daytron 0019
Denon 0145
Dumont 0017, 0019
Electroband 0000
Emerson 0236, 0180, 0178, 0179, 0463, 0624, 0623, 0019, 0154
Envision 0030
Fisher 0154
Fujitsu 0179, 0683
Funai 0180, 0171, 0179
Futuretech 0180
GE 0047, 1347, 0051, 0178, 0451, 1147, 0093
Gibralter 0017, 0019, 0030
GoldStar 0178, 0019, 0030, 0056
Gradiente 0056, 0053
Grunpy 0179, 0180
Hallmark 0178
Harley Davidson 0179
Harman/Kardon 0054
Harvard 0180
Hitachi 0145, 0056, 0016
Infinity 0054
Inteq 0017
JBL 0054
JCB 0000
JVC 0053
KEC 0180
KTV 0180, 0030
Kenwood 0030, 0019
Konka 0707, 0632, 0628, 0638, 0703
LG 0056
LXI 0154, 0047, 0054, 0156, 0178
Logik 0016
Luxman 0056
MGA 0150, 0019, 0030, 0178
MTC 0060, 0030, 0019, 0056
Magnavox 0054, 0030, 0179, 1254
Majestic 0016
Marantz 0054, 0030
Matsushita 0250
Megatron 0145, 0178
Memorex 0179, 0463, 0178, 0016, 0056, 0150, 0154, 0250
Midland 0017, 0047, 0051
Mitsubishi 0150, 0178, 0019, 0093
Motorola 0093
Multitech 0180
NAD 0156, 0166, 0178
NEC 0030, 0019, 0056
NTC 0092
Nikko 0178, 0030, 0092
Onwa 0180
Optimus 0250, 0166, 0154
Optonica 0093
Orion 0463, 0179, 0236
Panasonic 0051, 0250
Penney 0047, 1347, 0060, 0030, 0178, 0051, 0019, 0056, 0156
Philco 0145, 0019, 0030, 0054, 0463
Philips 0054
Pilot 0019, 0030
Pioneer 0166, 0679
Portland 0019, 0092
Princeton 0717
Prism 0051
Proscan 0047
Proton 0178
Pulsar 0017, 0019
Quasar 0051, 0250
RCA 0047, 1347, 1147, 0679, 1247, 0019, 0051, 0090, 0093, 1047, 1447
Radio Shack 0180, 0030, 0178, 0154, 0019, 0047, 0056
Realistic 0180, 0154, 0030, 0178, 0019, 0056
Runco 0017, 0030
SSS 0019, 0180
Sampo 0030
Samsung 0060, 0019, 0178, 0030, 0056
Sansei 0451
Sansui 0463
Sanyo 0154
Scimitsu 0019
Scotch 0178
Scott 0236, 0019, 0178, 0179, 0180
Sears 0154, 0056, 0156, 0047, 0054, 0171, 0178, 0179
Semivox 0180
Semp 0156
Sharp 0093, 0688
Shogun 0019
Signature 0016
Sony 0000
Soundesign 0178, 0179, 0180
Squareview 0171
Starlite 0180
Supreme 0000
Sylvania 0054, 0030
Symphonic 0171, 0180
TMK 0056, 0178
TNCi 0017
Tandy 0093
Technics 0051, 0250
Technol Ace 0179
Techwood 0051, 0056
Teknika 0016, 0054, 0179, 0180, 0019, 0092, 0056, 0060, 0150
Telefunken 0056
Toshiba 0156, 0060, 0154, 1256
Vector Research 0030
Victor 0053
Vidikron 0054
Vidtech 0019, 0178
Wards 0054, 0178, 0016, 0019, 0030, 0056, 0179
White Westinghouse 0624, 0623, 0463
Yamaha 0019, 0030
Zenith 0017, 0624, 0016, 0092, 0463

VCR CODES

Admiral 0048, 0209
Adventura 0000
Aiko 0278
Aiwa 0000, 0037
America Action 0278
American High 0035
Asha 0240
Audiovox 0037
Beaumark 0240
Bell & Howell 0104
Broksonic 0121, 0184, 0002, 0209, 0479
CCE 0072, 0278
Calix 0037
Canon 0035
Carver 0081
Cineral 0278
Citizen 0278, 0037
Colt 0072
Craig 0037, 0072, 0047, 0240
Curtis Mathes 0035, 0060, 0162
Cybernex 0240
Daewoo 0278, 0045
Denon 0042
Dynatech 0000
Electrohome 0037
Electrophonic 0037
Emerex 0032
Emerson 0184, 0002, 0209, 0278, 0121, 0479, 0000, 0037, 0043
Fisher 0047, 0104
Fuji 0033, 0035
Funai 0000
GE 0035, 0060, 0048, 0240
Garrard 0000
Go Video 0432
GoldStar 0037, 0038
Gradiente 0000
HI-Q 0047
Harley Davidson 0000
Harman/Kardon 0038, 0081
Harwood 0072
Hitachi 0042, 0000
Hughes Network Systems 0042
JVC 0067
KEC 0037, 0278
KLH 0072
Kenwood 0067, 0038

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Kodak 0035, 0037
LXI 0037
Lloyd's 0000
Logik 0072
MEI 0035
MGA 0043, 0240
MGN Technology 0240
MTC 0000, 0240
Magnasonic 0278
Magnavox 0035, 0081, 0563, 0000, 0039, 0149
Magnin 0240
Marantz 0081, 0035
Marta 0037
Matsushita 0035, 0162
Memorex 0104, 0047, 0479, 0000, 0037, 0048, 0035, 0240, 1037, 0039, 0162, 0209, 1162, 1262
Minolta 0042
Mitsubishi 0043, 0048, 0067
Motorola 0035, 0048
Multitech 0000, 0072
NEC 0038, 0067, 0104
Nikko 0037
Noblex 0240
Olympus 0035
Optimus 0162, 1062, 1162, 0048, 1262, 0037, 1048, 0104, 0432
Orion 0479, 0002, 0184, 0209
Panasonic 0035, 0162, 1162, 1262, 1362, 0616, 1062
Penney 0035, 0240, 0037, 0042, 0038
Pentax 0042
Philco 0035, 0209, 0479
Philips 0081, 0035, 0618, 1081, 1181
Pilot 0037
Pioneer 0067
Polk Audio 0081
Profitronic 0240
Proscan 0060
Protec 0072
Pulsar 0039
Quasar 0035, 0162, 1162
RCA 0060, 0149, 0042, 0035, 0048, 0240
Radio Shack 0000, 1037
Radix 0037
Randex 0037
Realistic 0000, 0104, 0047, 0048, 0037, 0035
ReplayTV 0614, 0616
Runco 0039
STS 0042
Samsung 0045, 0240
Sanky 0039, 0048
Sansui 0479, 0000, 0067, 0209
Sanyo 0047, 0104, 0240
Scott 0184, 0121, 0043, 0045
Sears 0037, 0042, 0000, 0035, 0047, 0104
Semp 0045
Sharp 0048
Shintom 0072
Shogun 0240
Singer 0072
Sony 0033, 0032, 0000, 0035, 0636, 1032
Sylvania 0035, 0081, 0000, 0043
Symphonic 0000
TMK 0240
Teac 0000
Technics 0035, 0162
Teknika 0000, 0035, 0037
Thomas 0000
Tivo 0618, 0636
Toshiba 0045, 0043
Totevision 0037, 0240
Unitech 0240
Vector 0045
Vector Research 0038
Video Concepts 0045
Videosonic 0240
Wards 0035, 0060, 0000, 0047, 0240, 0042, 0048, 0072, 0081, 0149
White Westinghouse 0072, 0278, 0209
XR-1000 0072, 0000, 0035
Yamaha 0038
Zenith 0039, 0000, 0033, 0209, 0479

DIGITAL VIDEO DISC CODES

Apex 0672
Denon 0490
Fisher 0670
GE 0522
Gradiente 0651
Hitachi 0573, 0664
Hiteker 0672
JVC 0623, 0558
Kenwood 0682, 0534
Konka 0719, 0711, 0720, 0721
Magnavox 0503, 0675
Marantz 0539
Mitsubishi 0521
Onkyo 0503
Optimus 0571
Oritron 0651
Panasonic 0490, 0677, 0632
Philips 0539, 0503
Pioneer 0571, 0525, 0632
Proscan 0522
RCA 0522, 0571
Samsung 0573
Sharp 0630
Sony 0533
Technics 0490
Theta Digital 0571
Toshiba 0503
Yamaha 0490, 0545
Zenith 0591, 0503

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Keyboard Programming

A wireless keyboard is available as on optional accessory for use with the FireBall SE. The keyboard can be programmed to operate one FireBall product and three other devices.

Only the FireBall source button (the one with the swoop) can be programmed to operate the FireBall. The three source buttons on the remote labeled TV, RCV, and DVD can be programmed to operate other devices.

Programming the Keyboard to Control FB1, FB2, FB3, or FB4 Sources

Swoop Button

The FireBall (swoop) source button is preprogrammed at the factory to correspond to the FB1 button on the remote. The FireBall source button can be programmed to correspond to any of the FB source buttons.

Follow these steps to program the keyboard to control any of the 4 FB IR code banks:

1. Press Swoop
2. Press & Hold the “Set” button on the keyboard until the LED flashes twice.
3. Slowly enter “997” using the number buttons on the keyboard. The LED will flash twice again.
4. Press the “CH-” button on the left side of the keyboard. The LED will flash four times.

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5. Press the Fireball (swoop) source button.
6. Press & Hold the “Set” button on the keyboard until the LED flashes twice.
7. Slowly enter:
    - 1119 for the FB1 button
    - 1120 for the FB2 button
    - 1121 for the FB3 button
    - 1122 for the FB4 button
8. The LED will again flash twice indicating the programming was successful.

The transport buttons on the top right of the keyboard are programmed to operate the FireBall, however, they are actually programmed onto the CBL source buttons.

The CBL button functions as the FB1 remote source button on the keyboard. This button “punches-thru” to the swoop key so that both are enabled when either the Swoop or the CBL button has been pressed. However, the CBL button is not available as a universal source when it has been programmed as the FireBall transport source button.

DO NOT program the CBL source button to control any other devices. Doing so will prohibit the use of the transport keys for controlling the FireBall.

If you accidentally reprogram the CBL source button, use the following steps to program the CBL button back to control the FireBall transports:

- Press Swoop
- Press & Hold the “Set” button on the keyboard until the LED flashes twice.
- Slowly enter “997” using the number buttons on the keyboard. The LED will flash twice again.
- Press the “CH-” button on the left side of the keyboard. The LED will flash four times.
- Press the CBL source button.
- Press & Hold the “Code Set” button on the remote until the LED flashes twice.
- Enter the CBL reset code which corresponds to the FB source being reset:
    - “1370” for FB1
    - “1371” for FB2
    - “1372” for FB3
    - “1373” for FB4
- The LED will flash twice indicating the code was accepted.

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Programming the Universal Source Buttons

Use the following steps to program the AUX, DVD, TV, and RCV source buttons to control other devices. The following table indicates which device types can be programmed on which source buttons:

Source Button	Device Assignment
TV	TV
CBL	NOT AVAILABLE
RCV	Amplifier, Tuner, Phono, Misc. Audio, CD, Home Automation, MD
DVD	VCR, Audio Cassette, DVD, LDP, DAT, PVR

- Locate the 4 digit device code for the device you want to control in Appendix A.
- Press the source button to be programmed.
- Press & Hold the “Code Set” button on the remote until the LED flashes twice.
- Enter the 4 digit code using the remote’s numeric keypad. The LED will flash twice indicating the code was accepted.

Note: If the LED does a single long flash then the entered code was not valid for that source button.

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Other Discrete IR Commands

Discrete IR commands are available by pressing a combination or series of keys. The following table defines which direct IR codes are available and the corresponding key combination.

Function	Single Key Combination	Multi-Key Sequence
Power On	SHIFT + Music	Macro, Music
Power Off	SHIFT + iRadio	Macro, iRadio
Play Mode: Normal	SHIFT + Movies	Macro, Movies
Play Mode: Repeat Track	SHIFT + Menu	Macro, Menu
Play Mode: Repeat Title	SHIFT + Subtitle	Macro, Subtitle
Play Mode: Repeat Group	SHIFT + Audio	Macro, Audio
Play Mode: Random Title	SHIFT + Repeat	Macro, Repeat
Play Mode: Random Group	SHIFT + Guide	Macro, Guide
Guide	SHIFT + Mode	Macro, Mode
Player	SHIFT + Info	Macro, Info
Music View: Cover	SHIFT + Option	Macro, Option
Music View: Artist	SHIFT + Next	Macro, Play Favorites
Music View: Title	SHIFT + Setup	Macro, Setup
Music View: Song	SHIFT + Random	Macro, Random
Movie View: Title	SHIFT + Setup	Macro, Setup
Movie View: Cover	SHIFT + Option	Macro, Option

Note: The SHIFT + [key] indicates that both the shift key and the other key are pressed simultaneously. The Macro, [key] means to press and release the Macro key first and then press and release the other key

See Appendix B for details and instructions for accessing the other various functions available on the remote control:

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Escient IR Key Codes

The FireBall remote uses the Philips RC6 Mode 6A IR protocol. The following table lists the RC6 Mode 6A key codes used by the FireBall that can be used in the ProntoEdit PC application to generate the IR codes for the Philips Pronto remote products and can also be used to generate the CCF files that can be imported into other 3rd party applications and control systems.

Note: There are also discrete IR codes listed in the table that are not available on the IR remote but can be used by control systems for functions such as discrete Power On and Off.

Escient Company Code: 32790
FB1: Address = 1
FB2: Address = 2
FB3: Address = 3
FB4: Address = 4

IR Remote RC6 Mode 6A Key Codes:

Remote Key Label	Key Type	RC6 Key Code
TV	Mode	-----
VCR	Mode	
CABLE	Mode	-----
AUX	Mode	-----
AMP	Mode	-----
TNR	Mode	-----
CD	Mode	-----
SAT	Mode	-----
POWER	Primary	0Fh
1 (./?')	Primary	01h
2 (ABC)	Primary	02h
3 (DEF)	Primary	03h
4 (GHI)	Primary	04h
5 (JKL)	Primary	05h
6 (MNO)	Primary	06h
7 (PQRS)	Primary	07h
8 (TUV)	Primary	08h
9 (WXYZ)	Primary	09h
0 (@-*#)	Primary	00h
MUTE	Primary	0Ch
ENTER	Primary	10h
+ (VOLUME)	Primary	0Ah
- (VOLUME)	Primary	0Bh
MODE (LAST)	Primary	11h
SETUP (SLEEP)	Primary	12h
OPTION (INPUT)	Primary	13h
+ (CH/PAGE)	Primary	0Dh
- (CH/PAGE)	Primary	0Eh
GUIDE	Primary	14h
OPENGLOBE	Primary	15h
UP	Primary	16h

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DOWN	Primary	17h
LEFT	Primary	18h
RIGHT	Primary	19h
SELECT	Primary	1Ah
INFO (ALL)	Primary	1Bh
VIEW (MENU)	Primary	1Ch
REW (BACKSPACE)	Primary	20h
PLAY	Primary	21h
FF (SPACE)	Primary	22h
PAUSE	Primary	25h
STOP	Primary	24h
RECORD	Primary	23h
MOVIES	Primary	26h
SUBTITLE	Primary	27h
AUDIO	Primary	30h
MACRO	Primary	31h
IRADIO	Primary	2Ah
NEXT	Primary	2Bh
PREV	Primary	32h
REPEAT	Primary	33h
MUSIC	Primary	2Ch
ADD	Primary	2Dh
PLAY	Primary	2Eh
RANDOM	Primary	2Fh

Discrete RC6 Mode 6A Key Codes:

Discrete Function	RC6 Key Code
Power On	41h
Power Off	42h
Normal Play Mode	43h
Repeat Track Play Mode	44h
Repeat Title Play Mode	45h
Repeat Group Play Mode	46h
Random Title Play Mode	47h
Random Group Mode	48h
View Artist	49h
View Title	4Ah
View Song	4Bh
View Cover	4Ch
Player	4Dh
Guide	4Eh

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Optional Accessories

Please contact your Escient Rep for more information on any of these accessories.

Escient EWP-1000 Wireless Web Pad

Features:

- Full FireBall remote control over wireless 802.11b networks
- Customized Internet Explorer Web Browser
- Touchscreen for finger or stylus input
- 8.4” backlit active matrix LCD screen
- Full color 800x600 FireBall user interface designed for touchscreen use
- Select and control networked FireBall-E servers
- Sleek lightweight design under 2 lbs.
- Rechargeable battery and charger/docking station included.
- Integrated stereo speakers and audio output for remote player capabilities

FireBall IR Keyboard

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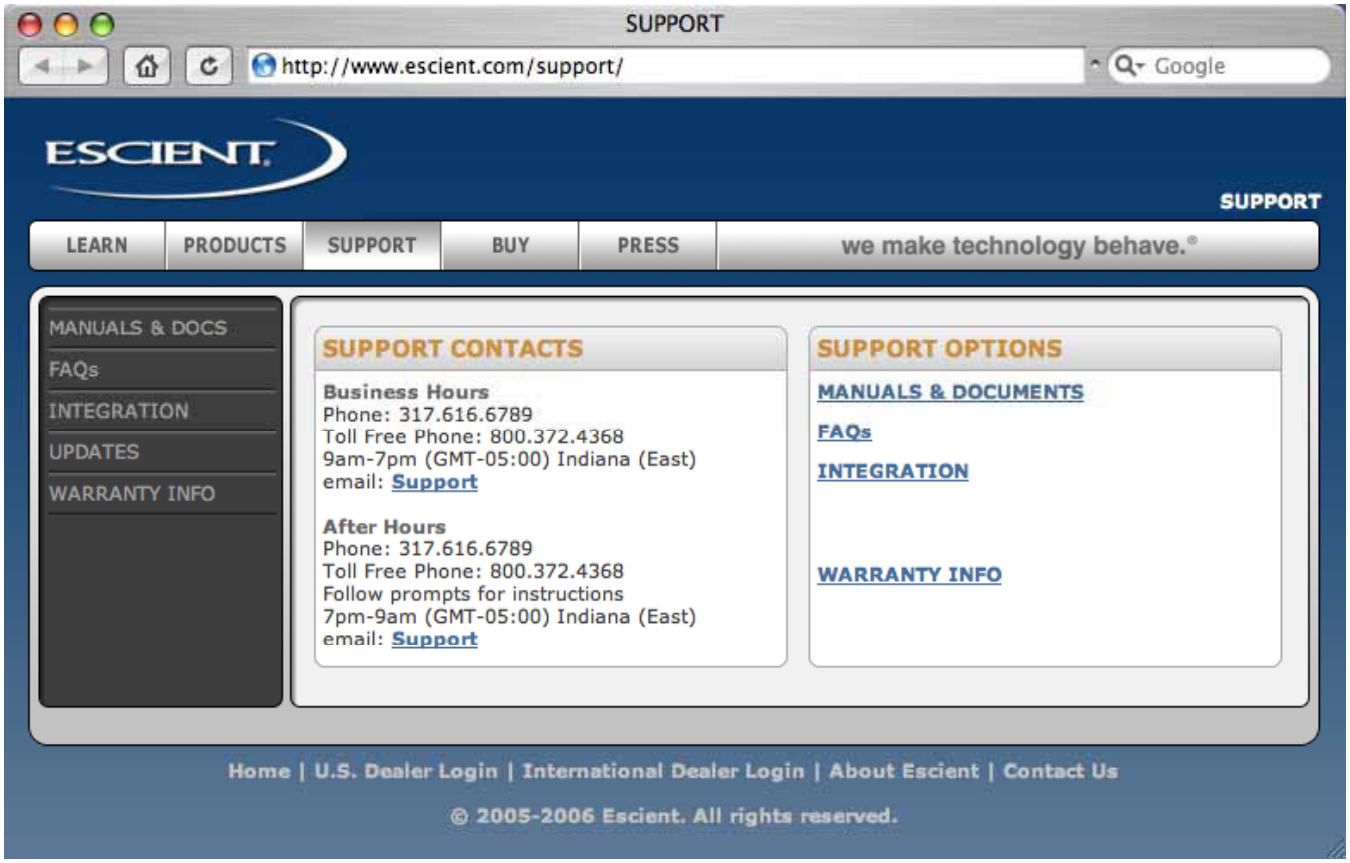
Technical Support

Escient Technical Support engineers are available from 9am to 7pm (GMT-05:00) Indiana time, Monday through Friday (US holidays excluded).

Dial 1-800-ESCIENT (800.372.4368) then select #3 for support.

24 Hour Technical Support is available from the Escient Web site http://www.escient.com/support or via email mailto:support@escient.com.



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Troubleshooting

Network Problems

If you experience problems registering a FireBall or connecting to the Internet to lookup disc information, try these possible fixes before calling Escient Tech Support:

- Make sure that your FireBall is properly connected to your home network and that all cables are in working order.
- FireBall communicates using TCP/IP and UDP over Ethernet networks using ports 80, 443, and 1755. If you have a router installed on your network, make sure that these ports are open for TCP and UDP.
- If Dynamic TCP/IP addressing fails, check your router to make sure that it is configured to assign dynamic IP addresses via DHCP and try rebooting your router.
- If DHCP addressing still isn't working, try using static IP addresses. The Internet Assigned Numbers Authority (IANA) has reserved the following three blocks of the IP address space for private networks: 10.0.0.0 - 10.255.255.255, 172.16.0.0 - 172.31.255.255, and 192.168.0.0 - 192.168.255.255. Note that the first block is nothing but a single class A network number, while the second block is a set of 16 contiguous class B network numbers, and the third block is a set of 255 contiguous class C network numbers. The complete RFC 1918 can be found via FTP on http://nic.ddn.mil
- Crestron, AMX, or other third party controllers capable of controlling the FireBall over Ethernet use port 251. Make sure your router has port 251 open if you plan on using two-way control over Ethernet.

Software Update Problems

Manual Software Update Checks

Software Updates are automatically checked once a week starting on the day of the week your FireBall was first registered. You can manually check for a software update by accessing the Software Update menu found under the Setup/Utilities Menu.

Recording Problems

Audio vs. Data CDs

FireBall requires Royalty paid blank media when recording audio CDs. Blank CDs marked with "Data" can not be used when creating Red Book audio CDs. You must purchase and use blank media marked as "Audio" or Music" CDs.

Repeated Lockup or Crash Problems

Obtaining FireBall Core and Log files.

If you are experiencing difficulties with your FireBall, you may be instructed by a Technical Support engineer to retrieve and email the FireBall "Core" and "Log" files to Escient.

Follow these steps to retrieve the core and log files from your FireBall:

6640 Intech Blvd. Suite 250 Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

1. Reboot the FireBall if needed.
2. Press SETUP to display the Setup Menu.
3. Select the Utilities Menu
4. Select the System Information Menu
5. Note the IP address of the FireBall.
6. Log onto a PC on the same network as the FireBall.
7. Launch your web browser (Netscape or Internet Explorer) and enter http://my_address/7.0.2/Eureka.000.log Where my_address is the IP address of your FireBall. (e.g. http://192.168.0.100/7.0.2/Eureka.000.log)
8. Repeat Step 7 to retrieve 001.log and 002.log.
9. To get retrieve the Core file in the address bar of the browser, type http://my_address/7.0.2/core

- Addresses ARE case sensitive so be careful when you type.
- The PC must be on the same subnet as the FireBall.
- These files may be large. To reduce size for emailing use a zip utility such as Winzip and attach the zipped files to an email to support@escient.com or to the support person you were working with. We will evaluate and respond as quickly as they can be fully analyzed by an Escient engineer.

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PRODUCTS FOR THE HUMAN INTERFACE.

ADDING YOUR OWN COVER ART

How to Add Your Own Music and Movie Covers to Your FireBall

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Adding Cover Art Images

Sometimes there are DVDs that are not automatically recognized by the Escient MovieDB™ or CDs that are not automatically recognized by the Gracenote CDDB™ service. Although FireBall provides default genre cover art for these discs, you may want to display your own cover art images for these discs. Here's how you can do it…

What You Will Need

To get your own images onto your FireBall, you will need:

- Escient FireBall DVDM-100 with version 3.0.0.6 software or later
- Escient FireBall E 40/120 with version 2.0.2.2 software or later
- An ethernet network
- PC or Mac computer on the same ethernet network as the FireBall
- FTP client software for your PC or Mac (see below)
- One or more JPEG or GIF images

There are many FTP client applications available for the PC and Mac, however we recommend that you use "WS_FTP LE" on the PC and "Fetch" on the Mac.

FS_FTP LE is free and is available from http://www.ftpplanet.com/download.htm
Fetch is available as a free 15 day download from http://fetchsoftworks.com/

Where to Get Cover Art

You can create your own images using your computer and a graphics program, or scan your own cover art from the original DVD or CD covers using your computer and a flatbed scanner.

Cover art is also available on the Internet at most popular sites that sell DVDs and CDs. Simply right click on the image and select the "Save Target As…" item and save it to your hard drive in a place you can easily find it with your FTP client application.

Image Specifications

Limitations

- Each cover art image must be less than 20k in size.
- Only JPEG and GIF image formats are acceptable.

WARNING

Images which are not JPEG or GIF images and images that are over 20K will generate errors when you try to transfer them to the FireBall. Use an image editing application like "Paint" or "Photoshop" to reduce the dimensions of your images and save them with enough JPEG compression to reduce the image to less than 20K.

Image Dimensions

You can use images with slightly different sizes and FireBall will properly scale the image to fit on screen, however, the following images sizes are recommended for optimum performance.

- DVD Covers should be 250 x 175 pixels
- CD Covers should be 200x200 pixels

Image Resolution

These images are only going to be viewed on a relatively low-resolution output device (your TV set) so a resolution of 72dpi is sufficient. Anything higher will just be wasted space.

Color Depth

If you are using JPEG images, your color depth will automatically be 24 bits. GIF images typically are only 8 bit images. If you are using GIF images, save them with 256 colors and turn “dithering” on.

Transferring Images to Your FireBall

Provided that you have met the above requirements, you are ready to transfer your images to your FireBall.

Determine your FireBall's IP Address

Every device on your network must have an IP Address so that the devices know how to locate and connect to each other. Follow these steps to determine the IP Address of your FireBall.

1. Power On Your FireBall
2. Press the SETUP key on the remote
3. Navigate and select the Utilities menu
4. Navigate and select the System Information menu
5. Locate the IP Address of your FireBall and write it down. This information is located at the bottom right of the System Information screen, under "Ethernet". The IP Address will have 4 numbers separated by periods. It will look something like this: **192.168.1.100**
6. Press SETUP again to exit from Setup.

System Information Screen

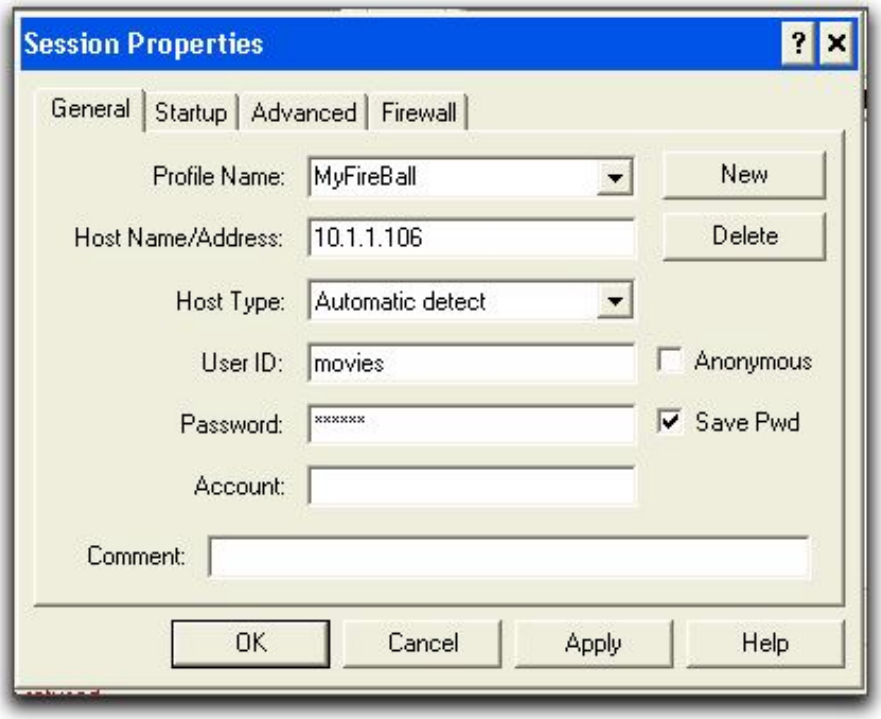
Connecting your PC to your FireBall

You will make an "FTP" connection from your PC (or Mac) to your FireBall. "FTP" stands for "File Transmission Protocol" and is a standard for transferring files between networked devices.

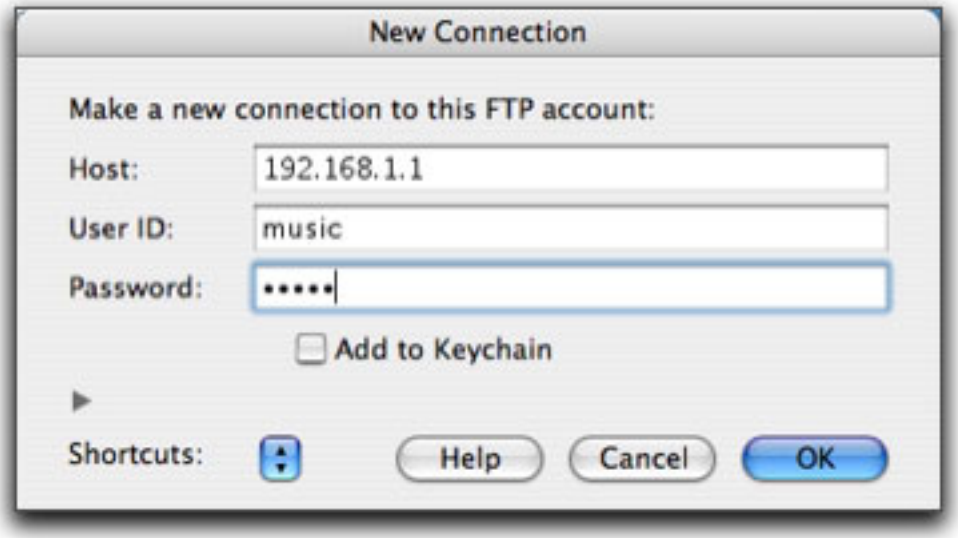
Using your FTP client program on your PC or Mac, make a new connection and enter your FireBall's IP address as the **host name**.

If you are transferring DVD cover art, use "**movies**" for the user name and password.

If you are transferring CD cover art, use "**music**" for the user name and password.



New Connection Dialog in WS_FTP LE on the PC



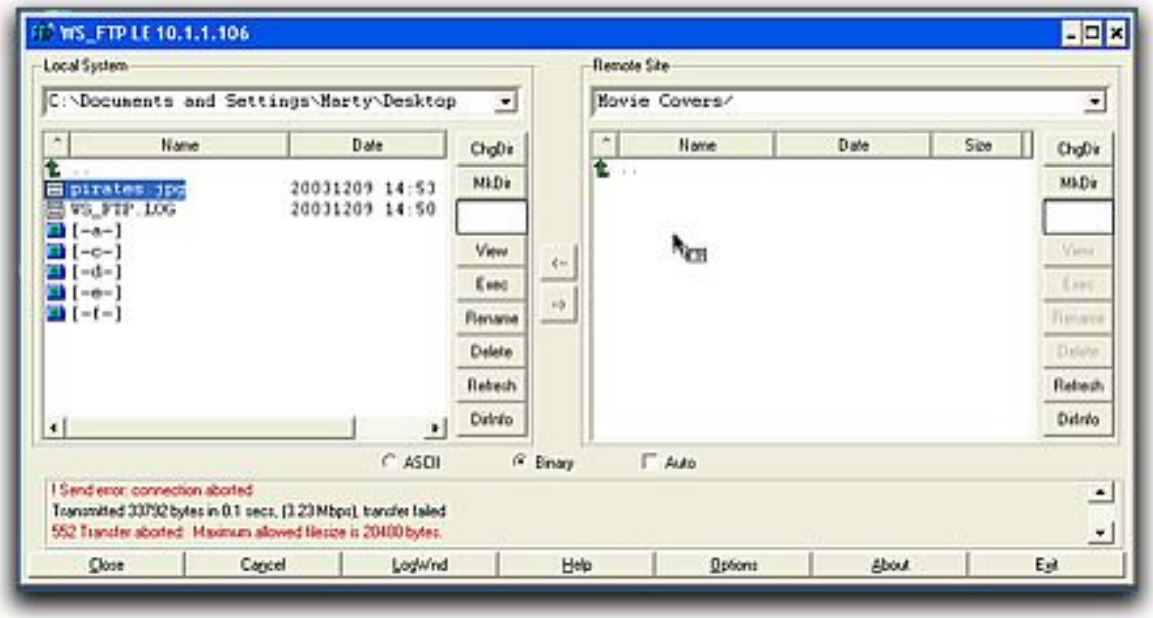
New Connection Dialog in Fetch on the Mac

WARNING: Do not place DVD covers in the Music directory or CD covers in the Movies directory on FireBall. Place DVD covers in the Movies directory only. Place CD covers in the Music directory only. You must log out and then log in again to switch directories.

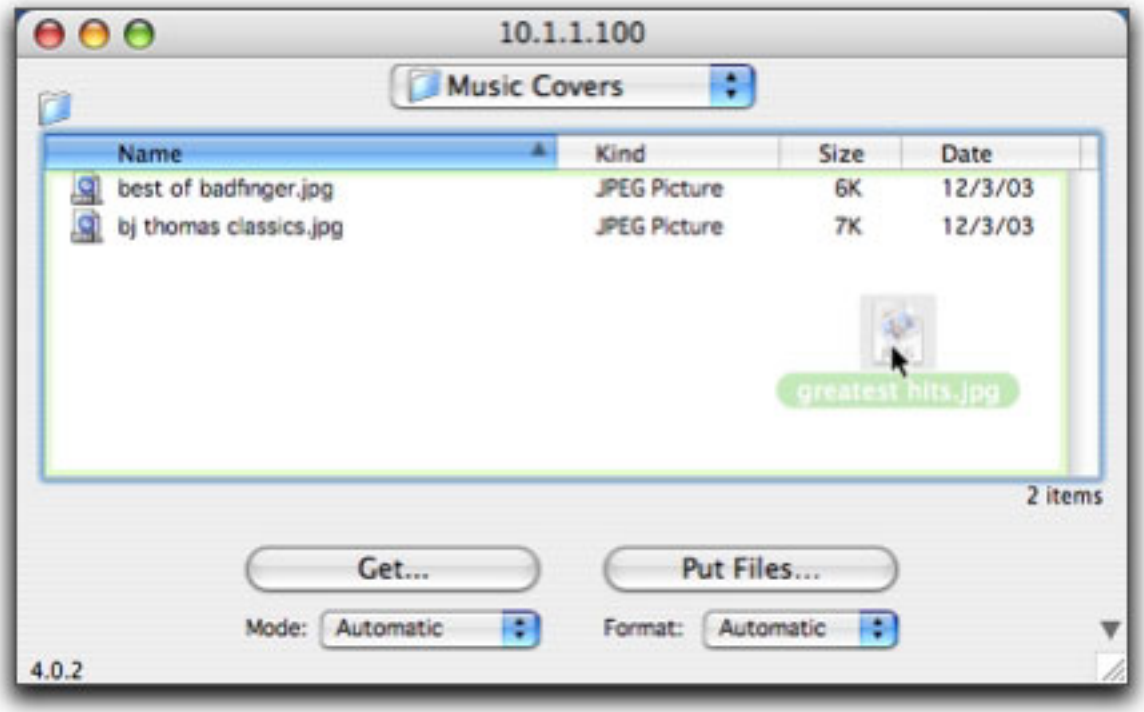
Uploading Images to The FireBall

Once you have made the FTP connection to your FireBall, you can just drag and drop the images you want to upload into your FireBall into the “Music” or “Movies” panel in the FTP window.

Note: Your FTP client transfer mode should be set to **automatic** or **binary**.



Transferring a Movies Cover with WS_FTP on the PC



Transferring a Music Cover with Fetch on the Mac

Only your new cover art images will appear in the Music or Movies directories. You will not see the covers that FireBall already provides for your music and movie titles.

Selecting Cover Art on FireBall

You can select and assign any of the new or existing cover art images to any title in your Music or Movie library.

Select Music Covers

Follow these steps to select and assign a cover to one of your Music titles:

1. Press the Music key on the remote to enter Music Mode.
2. Highlight the Music Title you want to assign a cover to.
3. Press the Options key to display the Music Options menu.
4. Select the Edit Disc menu item to display the Edit Disc Info dialog.
5. Select the Select Cover Art button to display the Select Cover Art dialog.
6. Highlight the desired cover art image name from the scrolling list. (As you highlight each name, the corresponding cover image will be displayed on the right.)
7. Press Select to assign the highlighted cover to the current disc.

Select Movie Covers

Follow these steps to select and assign a cover to one of your Movie titles:

1. Press the Movies key on the remote to enter Movies Mode.
2. Highlight the Movie Title you want to assign a cover to.
3. Press the Options key to display the Movies Options menu.
4. Select the Select Cover Art menu item to display the Select Cover Art dialog.
5. Highlight the desired cover art image name from the scrolling list. (As you highlight each name, the corresponding cover image will be displayed on the right.)
6. Press Select to assign the highlighted cover to the current disc.

Note: Your own covers will be listed alphabetically with the existing covers.

Movies - Select Cover Art dialog

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ADDING INTERNET RADIO STATIONS

How to add your own Internet radio stations to FireBall's Radio Guide

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Adding New Internet Radio Stations

Your FireBall is able to deliver a variety of Internet radio station programming through its connection to the Internet. Escient's OpenGlobe Internet radio service provides a large variety of stations including Radio Free Virgin and various other stations from across the country. These stations can be selected for playback in the Radio Guide view.

In order to increase your listening enjoyment, FireBall also allows you to add new Internet Radio to the Radio Guide for playback. The FireBall will tune stations that broadcast in the Microsoft WMA V2, V7 and V8 formats at bit rates up to 192kpbs. A complete list of the supported bit rates is listed in Appendix A. The procedure below will give you some examples of how to find new stations and add them to the Radio Guide.

Locate New Stations

Internet Radio is a fairly new form of radio broadcasting which all terrestrial radio stations have not yet adopted. Please keep in mind that the station you are interested in may not broadcast over the Internet, or it may use a proprietary interface only accessible from a PC. You can locate Internet radio stations using various Internet Radio web sites that can be accessed using the Internet Browser on a PC. One example is Radio-Locator. Simply, go to **http://www.radio-locator.com** and type in the station call letters, zip code, State code, Genre, or Country in the fields provided and press **GO**. The radio locator will return information about the station or the area that you requested. Click on the (i) icon in order to find the detailed information about the specific station. From the Information page, the radio locator will list an Internet address for the Audio Stream location. If this address ends with a **.asx** or **.asf** file extension, then the FireBall may be able to playback this station.

Examples:

WSM-AM 650 kHz
Nashville, Tennessee
"America's Country Music Station"
Audio Feed: mms://mmslb.eonstreams.com/wsmam1.asf

KFOG-FM 104.5 MHz
San Francisco, California
"K-Fog Worldclassrock 104.5"
Audio Feed: http://www.streamaudio.com/stations/asx/kfog_fm.asx

Add The Stations To The Guide

While in the Radio mode, press the Menu button on the remote, and select "New Station" from the list of options. When prompted as to what station you would like to add, select "Internet". Using the remote control or a USB keyboard, type in the information about the station in the fields provided. The Audio Feed information goes into the field titled "**URL"**. Once completed, press the record button to save this information. Your new radio station is now available to select in the Radio Guide!

Listen to the New Stations

Select the station to playback while in the Radio Guide by either pressing the Select button, or the Play button while the station is highlighted. The station will begin playback by first locating the station, connecting to the server, buffering the data, then playing. If the station is not available, a message will be displayed on the screen indicating that the "Station Is Not Available".

Uh oh, "Station Not Available"?

There are several reasons why an Internet radio station is not available. At any time, the radio broadcaster may decide to no longer stream over the Internet, or the radio broadcaster may also select to change formats and no longer deliver a stream that can be played back by the FireBall. Escient will work hard to guarantee the quality of the stations that are provided in the Radio Guide, however, there can be no guarantee to those station created by the users.

FireBall Supported Internet Radio Formats and Bit Rates

The following table lists the specifications for each type of supported WMA radio stream.

WMA-Audio V2, V7 and V8		
Bitrate	Sampling Frequency	Channels
5Kbps	8KHz	Mono
6Kbps	8KHz	Mono
8Kbps	8KHz	Mono
	11.025KHz	Mono
10Kbps	11.025KHz	Mono
	16KHz	Mono
12Kbps	16KHz	Mono
	8KHz	Stereo
16Kbps	16KHz	Mono
		Stereo
	22.05KHz	Mono
20Kbps	16KHz	Stereo
	22.05KHz	Mono
		Stereo
	32KHz	Mono
22Kbps	22.05KHz	Stereo
	32KHz	Stereo
32Kbps	22.05KHz	Stereo
	32KHz	Stereo
	44.1KHz	Mono
		Stereo
36kbps	32KHz	Stereo
40Kbps	32KHz	Stereo
44kbps	32 Khz	Stereo
48Kbps	32KHz	Stereo

	44.1KHz	Mono
		Stereo
64Kbps	32 Khz	Stereo
	44.1KHz	Stereo
80Kbps	44.1KHz	Stereo
96Kbps	44.1KHz	Stereo
128Kbps	44.1KHz	Stereo
	48KHz	Stereo
160Kbps	44.1KHz	Stereo
	48KHz	Stereo
192Kbps	44.1KHz	Stereo
	48KHz	Stereo

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ADDING DISC INFORMATION FOR UNKNOWN DISCS

A Guide to Editing Disc Information for DVDs and CDs

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Why do I have Unknown Discs?

No, you didn't buy 5 copies of the new action movie "Unknown DVD". There are several reasons why you may have discs listed as "Unknown" in your Movies and/or Music Guide. Before we explain why, we must understand how discs are automatically looked up.

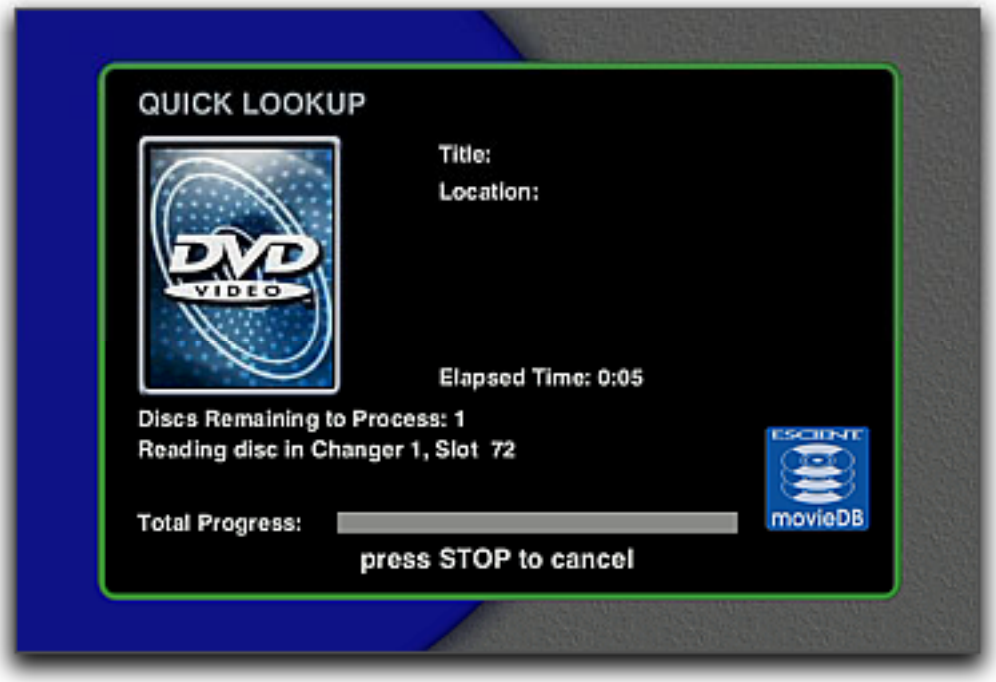
First Things First

The most important FireBall requirement for the automatic disc lookup feature is the presence of a working Internet connection. Without an active Internet connection, FireBall can't contact the online Gracenote CDDB™ database or the Escient MovieDB™ database, where information is stored for millions of music and movie titles.

This document assumes that you have a working dialup or Ethernet connection to the Internet. Please refer to you User Guide and Manual, the Escient Web site, or your Escient dealer if you have questions concerning the proper configuration of your Internet connection.

Auto-Build and Quick Lookup

The Auto-Build process occurs when you initially setup your FireBall system, insert your discs into your changers, and close the changer doors. Your media library is automatically built from the discs located in your changers. You do not have to do anything once the Auto-Build process starts.



Auto-Build is sometimes called "**Quick Lookup**". As you add or remove discs from your changer, FireBall is smart enough to notice which discs were removed or added, then quickly looks-up only those discs – instead of your entire disc collection.

How Are My Discs Identified?

During the Auto-Build process, FireBall reads a small piece of information from each disc, calculates a special number called a **key**, then sends this key to the Gracenote CDDB™ (for Music discs) or to the Escient MovieDB™ (for DVDs) using your Internet connection. The CDDB and MovieDB return information about the disc to your FireBall. FireBall adds this information to your local media library and displays it on your TV.

Causes of Unknown Discs

The five possible causes for Unknown discs are as follows:

1) Unsupported Disc Format

Only the following disc formats are valid. Any other discs formats will not be looked up, even if the changer supports them (i.e. VideoCD, MP3, PhotoCD, etc…)

- Standard Audio CDs (Red Book)
- Enhanced CDs (Blue Book – audio session only)
- CD-R/CD-RW (Orange Book – when exact duplicate of a Red Book CD)
- SACD (only if the changer is set to CD and the SACD is a Hybrid-CD)
- DVD-Video
- DVD-Audio
- DVD-R/DVD-RW (when exact duplicate of a DVD-Video disc)

2) Dirty or Damaged Discs

Discs can get dirty and you can damage them. Usually the changer won't even read a dirty or damaged disc. If it can read it, the key data may not be correct and the disc can not be identified correctly.

3) Discs Inserted Incorrectly

If you insert your discs facing the wrong way in your changer, they will not be read and will appear as Unknown or missing.

4) Recent Releases

Gracenote CDDB™ and Escient's MovieDB™ are updated regularly, however you may find that a new release is not yet in the database and will not be correctly identified.

5) Different Version, Release, Edition, or Pressing

The record labels and movie studios often release more than 1 version of a CD or DVD. For example, there are often two versions of a movie released on DVD (wide screen and standard 4:3) as well as single and multi-disc sets, special editions, director's cuts, and bonus material discs.

The Gracenote CDDB™ and Escient MovieDB™ attempt to cover each possible version, release, edition, and pressing, but there are times when a certain release is not available everywhere and you will find these discs being marked at Unknown, even though it is a popular title.

Automatically Adding Disc Information

Automatic Disc Information Summary

There are 5 methods for automatically looking up disc information. These methods are described in detail below.

Method	Description
Quick Lookup	Lookup new or removed discs
Lookup Range	Lookup a contiguous range of discs
Lookup All	Lookup all discs in all changers
Get Music/Movie Info	Lookup unknown Music or Movie titles
Lookup This Disc	Lookup a single disc

Quick Lookup, Lookup Range, and Lookup All

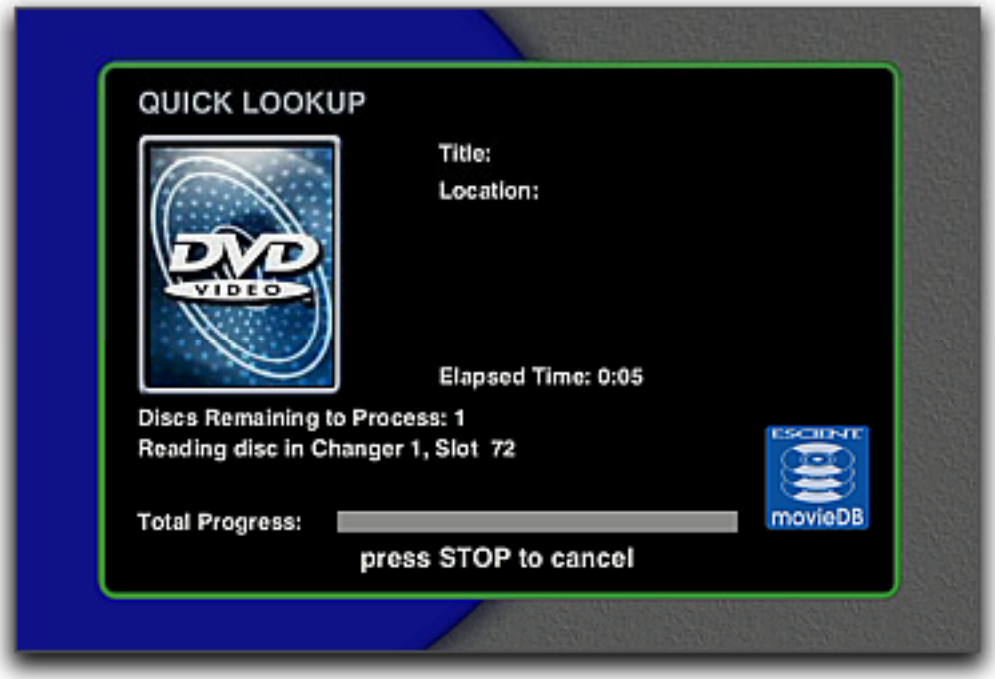
These automatic methods of adding disc information are available from the **Setup/Changer Management** menu and automatically lookup disc information based on the disc's unique key.

WARNING

These automatic lookup methods will lookup and download all information for each of the selected discs. Any information you manually entered will be replaced with the data downloaded from the Gracenote CDDB™ and Escient MovieDB™.

Quick Lookup

Performs a disc lookup for each slot in each changer that has changed since the last time a lookup was performed. FireBall keeps a map of each slot in each changer and will lookup each disc based on which slots have changed status from occupied to empty or empty to occupied.



NOTE

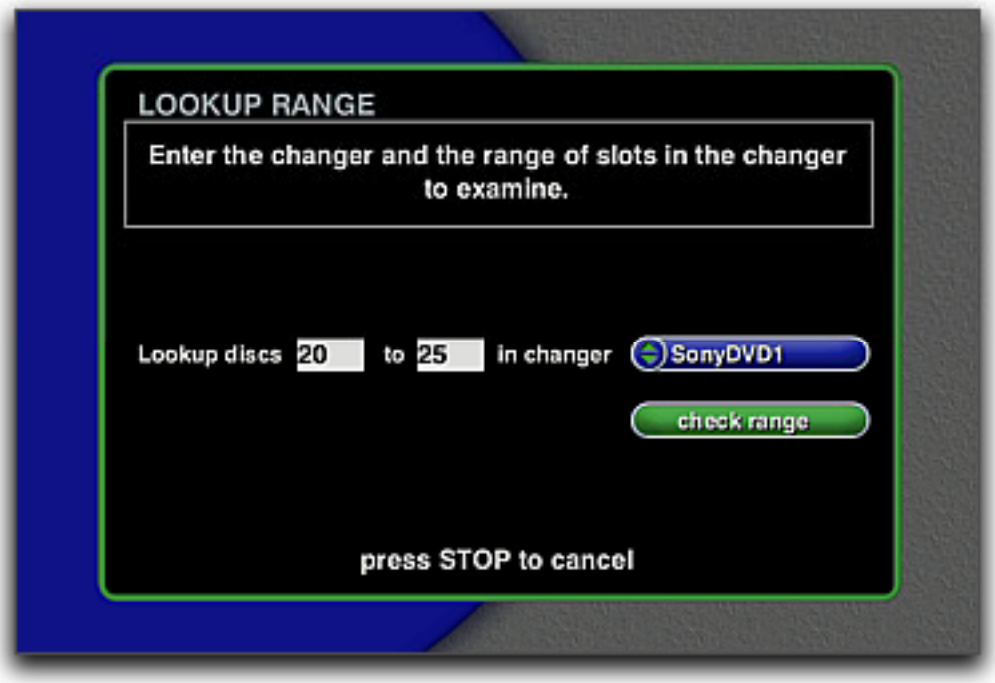
Do not remove discs from a changer then place different discs back into the same slots in one step. If the slots are still occupied, but with different discs, FireBall will not know that you changed them.

If you want to add and remove discs without closing the changer door and performing a Quick Lookup, use previously empty slots for the new discs and leave the slots empty for discs you are removing.

If you don't have free slots to add the new discs, first remove your discs, close the changer door, and wait for Quick Lookup to complete (FireBall will mark the newly vacant slots as empty). Open the door and insert the new discs into the same empty slots. Close the door and the new discs will be looked up.

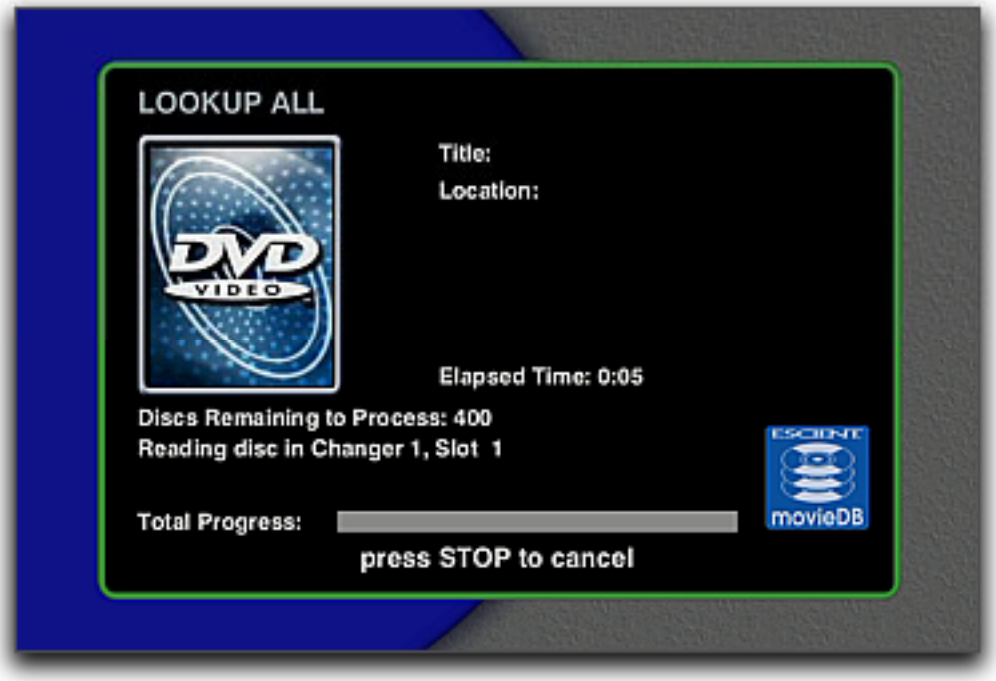
Lookup Range

Allows you to specify a range of slots in a single changer to lookup automatically. You enter the starting slot number, ending slot number, and select the changer from the spin control. FireBall will read each disc in the selected range and perform an automatic lookup for each.


LOOKUP RANGE
Enter the changer and the range of slots in the changer to examine.
Lookup discs 20 to 25 in changer SonyDVD1
check range
press STOP to cancel

Lookup All

Performs a complete lookup of all discs in all changers, completely replacing your media library with the original data from the Gracenote CDDB™ and Escient MovieDB™ servers. All manually entered data is replaced.

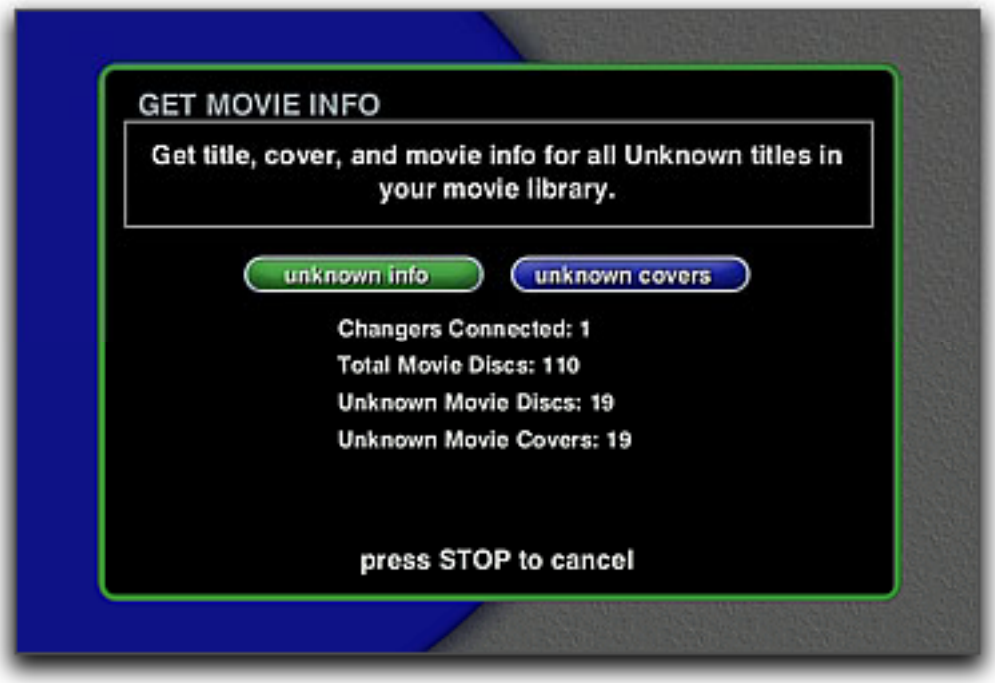


Get Movie/Music Info

The Get Movie Info and Get Music Info features are available via the Options Menu when in the Movies Guide or Player and the Music Guide or Player.

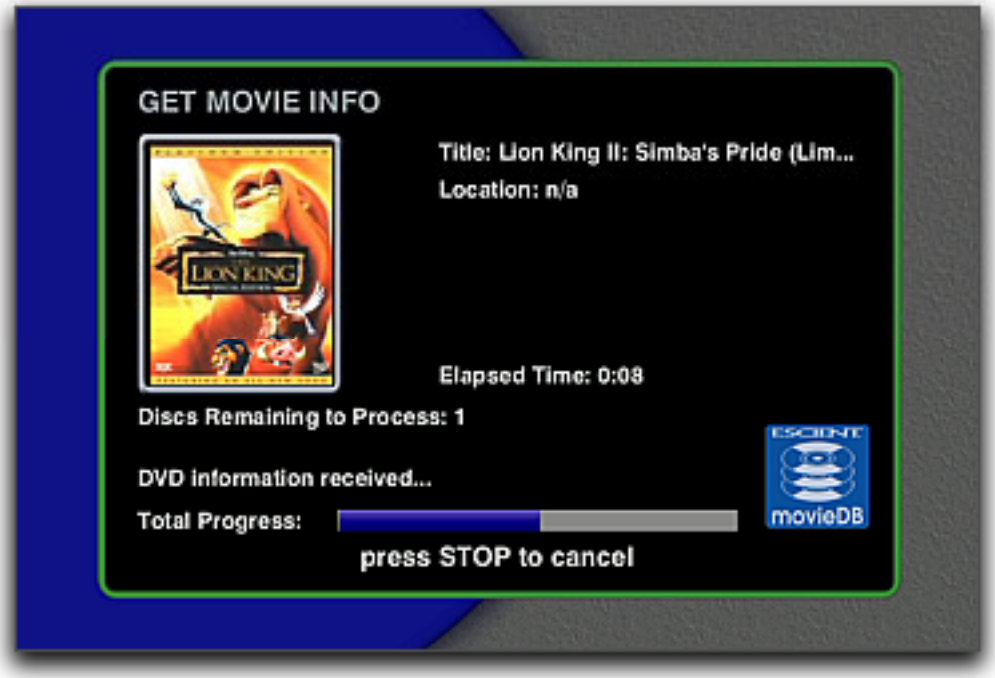
Get Music Info will perform an automatic lookup of each Unknown disc in the Music library. This is useful if you have previously added new releases which weren't recognized, or did not have an Internet connection when you recorded tracks to FireBall.

Get Movie Info provides two features: **Unknown Info** and **Unknown Covers**.


GET MOVIE INFO
Get title, cover, and movie info for all Unknown titles in your movie library.
unknown info
unknown covers
Changers Connected: 1
Total Movie Discs: 110
Unknown Movie Discs: 19
Unknown Movie Covers: 19
press STOP to cancel

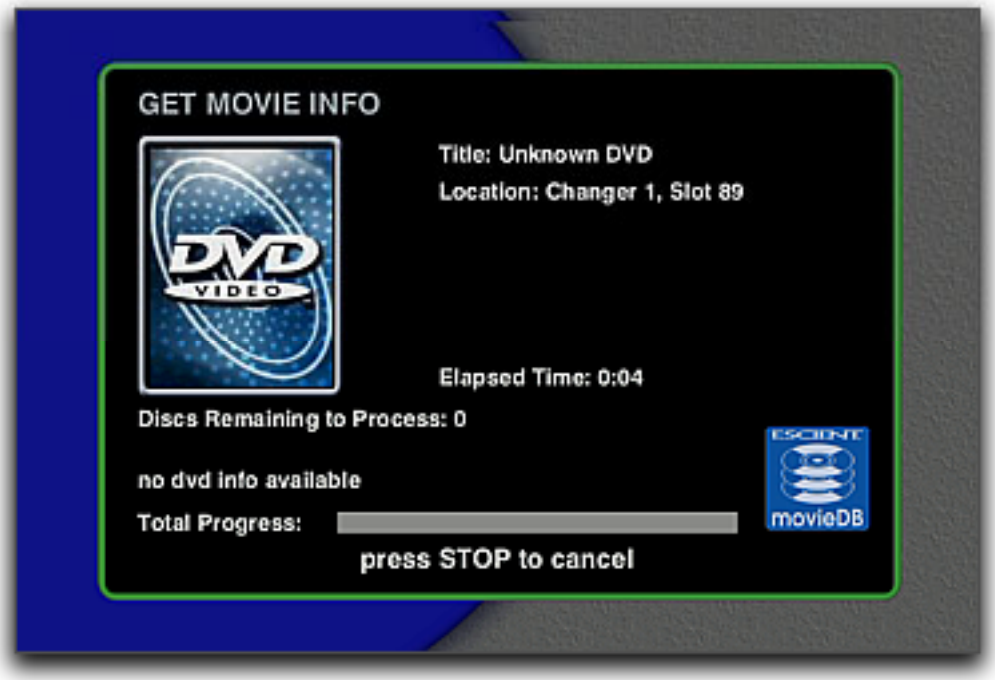
Unknown Info will lookup all information for the Unknown movie discs in your changer.

Unknown Covers will lookup the cover art images for all movies that don't have original cover art.



Lookup This Disc

Lookup this Disc is available when editing a single disc and you want to lookup information for only this one disc. Lookup This Disc uses the unique Key from the disc to identify the disc. The Lookup This Disc feature is available from the Options/Edit Disc dialog screen and uses the Get Movie Info screen.



When disc information is returned for the disc, the Edit Disc Information screen displays the new data (if available). This gives you the opportunity to CANCEL or SAVE the new information with the Disc.

Manually Adding Disc Information

There are several methods for manually adding your own disc information should the Gracenote CDDB™ or Escient MovieDB™ return incorrect or no information at all for discs in your collection.

We will describe the tools available within FireBall to help you identify, add, and edit disc information for your Unknown Movie and Music titles.

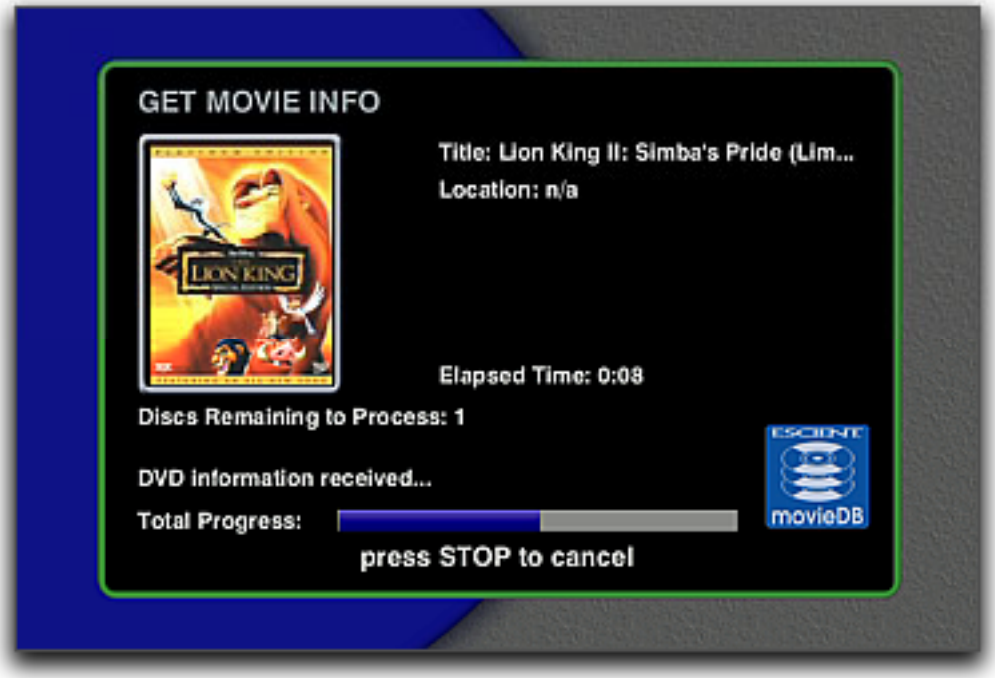
Movies

Search For Movie

The most useful tool for manually adding disc information to an Unknown Movie title is Search For Movie. Search For Movie allows you to enter a movie title or portion of a movie title then search the Escient MovieDB™. Here's how it works:

- Highlight the Unknown DVD title in the Movies Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- Navigate to the ***Search For Movie*** button and press SELECT.
- You should see the following dialog:

- Press the PLAY key on the remote to clear the current title.
- Enter the title of the movie using the remote control or wireless keyboard
- Highlight the Search button and press SELECT to start the search.
- The Get Movie Info screen displays the progress of the search:



- If 1 match is found, the information will be displayed in the Edit Disc Info screen.
- If no matches are found, the previous information is displayed in the Edit Disc Info screen.
- If there is more than 1 match the Multiple Match dialog screen is displayed where you can highlight each title to view it's cover art. When you decide which title is the correct title, press the SELECT key and the Edit Disc Info screen will display the information for the selected disc.

MULTIPLE MATCHES FOUND
please select one of these titles:
Shrek - Special Edition (Disc 1)
Shrek - Special Edition (Disc 2) (DTS)
press SELECT to save, STOP to cancel

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

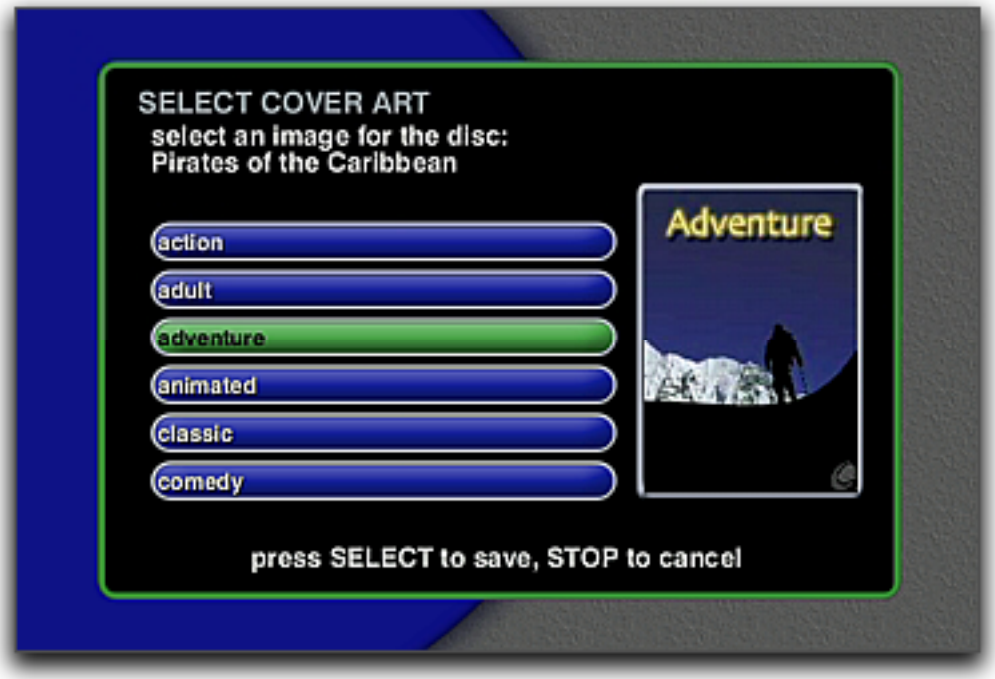
Tips for Using Search for Movie

- If you don't get an exact match for the movie you are searching, try entering different parts of the title. For example, if you have the movie "The Lion King", try searching for "Lion King," (notice the comma) or "Lion King". If you are have the movie "Star Wars Episode I: The Phantom Menace", try entering just "Phantom Menace".
- Try removing indefinite and definite articles "a", "an", and "the" from movie titles.
- Upper and lowercase don't matter. You can use all lowercase letters or all uppercase letters in you title. You will get the same results.
- Try to use the actual movie title as you would see it advertised on the marquee. Leave off information about the release, edition, or any other "special" name added to the movie title. For example: use "Monster's Inc." instead of "Monster's Inc. – Collectors Edition".

Select Cover

The Select Cover tool allows you to manually select a cover to attach to any Title in your Movies guide.

- Highlight any DVD title in the Movies Guide.
- Press OPTION, then navigate and SELECT the ***Select Cover*** menu item.
- You should see the following dialog:



All titles are listed alphabetically in the Select Cover dialog screen, including the Escient MovieDB™ default genre covers (listed at the bottom), custom covers already downloaded from the Escient MovieDB™ and any user covers you transferred to your FireBall.

Press the RECORD key on the remote or keyboard to save the selected cover with the current movie or press STOP to cancel and discard the current selection.

NOTE

Please refer to the ***Adding Your Own Cover Art Images*** support document available on the Escient web site for more information about how to transfer cover art images to your FireBall.

Edit Disc

If you have an Unknown disc that just isn't in the Escient MovieDB™, you can manually type information into the Edit Disc dialog. The Edit Disc Info dialog screen allows you to manually enter information for your Unknown discs and assign generic or custom cover art. Use your IR remote or keyboard to enter data into each field on the screen.

- Highlight any DVD title in the Movies Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- You should see the following dialog:

- Enter information describing this disc. Use the original DVD case or the Internet as a source for your data.

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

Music

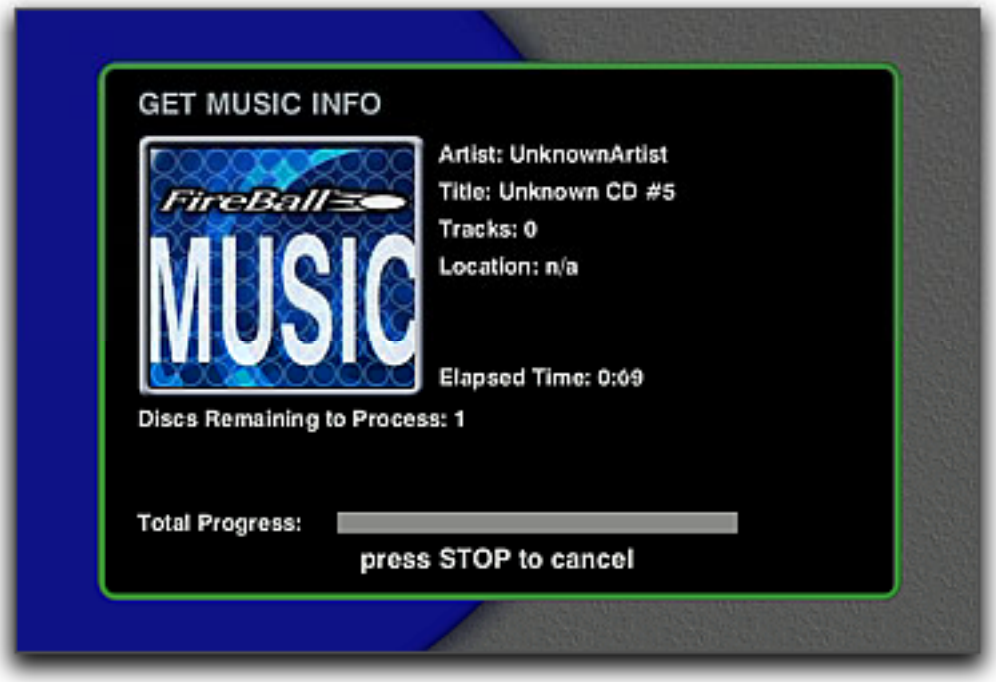
Search For Cover

Sometimes a disc is identified by the Gracenote CDDB™ but the original album art cover is not available. This is because the Gracenote CDDB™ does not contain any album covers and the Escient album art cover server may have the cover listed under a slightly different artist/title combination.

The Search for Cover tool allows you to search for the original album cover art by entering an Artist Name and Album Title. These two text strings are used to locate possible cover matches on the Escient cover server.

- Highlight any title in the Music Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- Navigate to the ***Search For Cover*** button and press SELECT.
- You should see the following dialog:

- Press the PLAY key on the remote if you want to clear the current artist name and enter an artist name using the remote control or wireless keyboard
- Press SELECT on the remote to advance to the album title.
- Press the PLAY key on the remote if you want to clear the current album title and enter an album title using the remote control or wireless keyboard
- Highlight the Search button and press SELECT to start the search.
- The Get Music Info screen displays the progress of the search:



- If a match is found, the new cover will be displayed in the Edit Disc Info screen.
- If no matches are found, the previous cover is displayed in the Edit Disc Info screen.

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

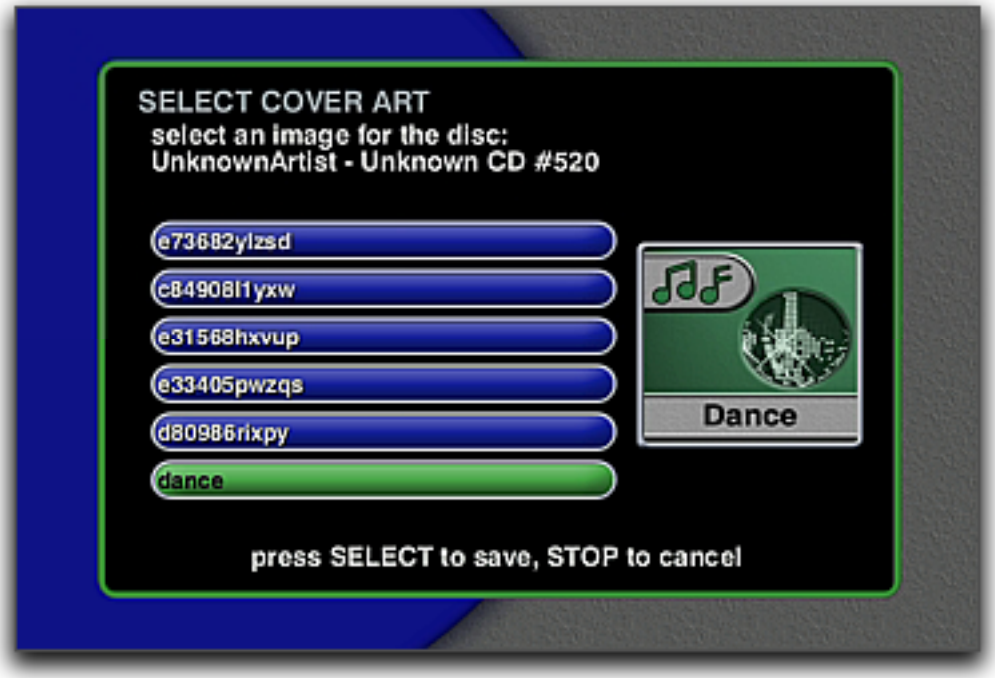
Tips for Using Search for Cover

- Try removing punctuation marks in the artist name or album title
- Remove all disc numbers, volume numbers, and years from the title
- Try removing indefinite and definite articles “a”, “an”, and “the” from artist names and album titles.

Select Cover

The Select Cover tool allows you to manually select a cover to attach to any Title in your Music guide.

- Highlight any Music title in the Music Guide.
- Press OPTION, then navigate and SELECT the ***Edit Disc*** menu item.
- Navigate to the ***Select Cover*** button and press SELECT.
- You should see the following dialog:



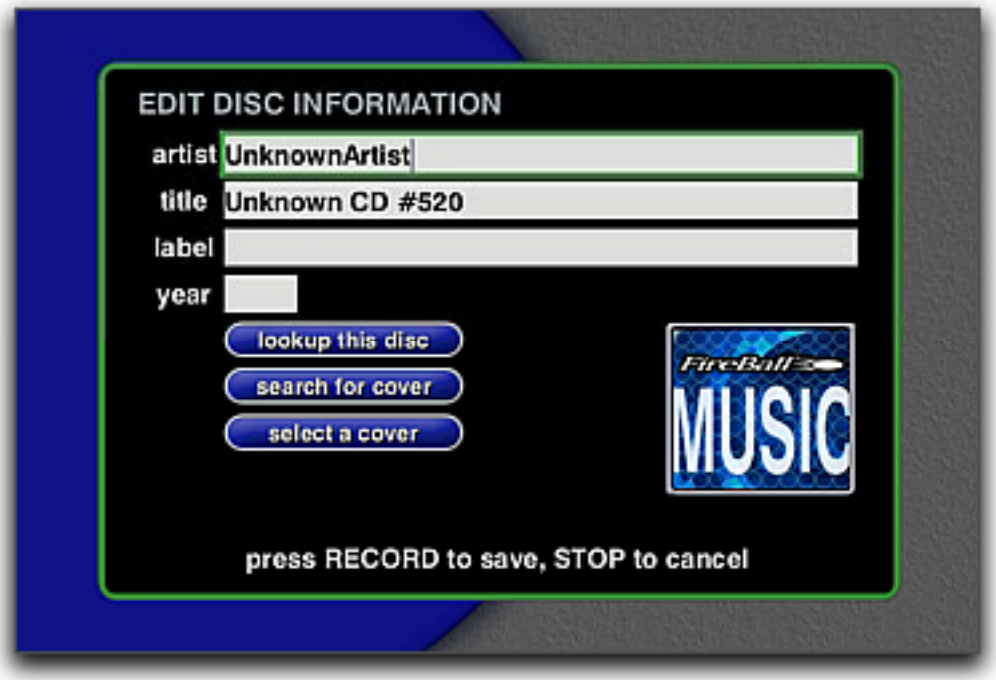
All titles are listed alphabetically in the Select Cover dialog screen, including the Escient MovieDB™ default genre covers, custom covers already downloaded from the Escient MovieDB™ and any user covers you transferred to your FireBall.

Press the RECORD key on the remote or keyboard to save the selected cover with the current movie or press STOP to cancel and discard the current selection.

Edit Disc

If you have an Unknown disc that just isn't in the Gracenote CDDB™ database, you can manually type information into the Edit Disc dialog. The Edit Disc Info dialog screen allows you to manually enter information for your Unknown discs and assign generic or custom cover art. Use your IR remote or keyboard to enter data into each field on the screen.

- Highlight any Music title in the Music Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- You should see the following dialog:



Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

Edit Tracks

Edit Tracks allows you to enter track names for every track found on the current Music title.

- Highlight any Music title in the Music Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Tracks*** menu item.
- You should see the following dialog:

EDIT TRACKS
UnknownArtist - Unknown CD #520
1 - Track 1
2 - Track 2
3 - Track 3
4 - Track 4
5 - Track 5
6 - Track 6
press RECORD to save, STOP to cancel

- Enter the name of each track using the IR remote or keyboard.
- Press SELECT to save the current track name and advance to the next track name.

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

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FIREBALL ACCESSORIES

Accessories for Escient FireBall Products

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Escient FireBall Product Accessories

Please contact your Escient dealer for more information and pricing.

Escient 15” LCD Touch Panel

Features:

- LCD Display 15" TFT Active Matrix Panel
- Display Size 304.1x228.1 mm
- Pixel Pitch 0.297x0.297 mm
- Display Mode VGA 640x350(70Hz)
- VGA 640x480 (60/72/75Hz)
- Contrast Ratio 300
- Brightness 230 cd/m2
- Display Colors 16M(dithering)
- Viewing Angle +60°~-60°(L/R), +40°~-60°(U/D)(Max.)
- Video in: PAL/NTSC & S-video
- Wide Viewing Angel
- Power Universal 90-240V, 12V/35W
- Dimensions 355.5x379x162 mm
- Weight(Net) 7.5Kg

FireBall to Pioneer DVD Changer Serial Cable

FireBall to Sony DVD Changer Serial Cable

Optical Digital Audio Cable (3')

FireBall IR Keyboard

FireBall IR Remote

FireBall DVDM IR Keyboard

FireBall DVDM IR Remote

USB to Ethernet Adapter (Smart Nic2)

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

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INSTALLER CHECKLIST

Installation Checklist for Escient FireBall Products

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Escient FireBall Installation Checklist

The follow are recommendations for installing Escient FireBall music and movie management systems. Feel free to add your own information to this list depending on what other equipment will be installed with the FireBall systems.

Note: Escient FireBall products require a dialup or broadband Internet connection to operate fully. Please pay special attention to the Network Information section.

Customer Information

Name: _____

Address 1: _____

Address 2: _____

City: _____

State: _____

Zip Code: _____

Phone: _____

Email: _____

Dealer/Installer Information

Dealer: _____

Installer: _____

Address 1: _____

Address 2: _____

City: _____

State: _____

Zip Code: _____

Work Order: _____

Phone: _____

Email: _____

ISP Information

Service Provider: _____

Support Number: _____

Connection Type

☐ Dialup ☐ LAN ☐ ISDN
☐ Cable Modem ☐ DSL ☐ Other

Dialup Info

Access Numbers: _____ _____

User Name: _____

Password: _____

IP Info

Addressing: ☐ Dynamic (DHCP) ☐ Static

IP Address: _____

Gateway/Router: _____

Net Mask: _____

Domain Name Servers: _____ _____

Note: If installing more than 1 FireBall on a Static network, each will require its own IP Address.

FireBall 2 IP Address: _____

FireBall 3 IP Address: _____

FireBall 4 IP Address: _____

FireBall 5 IP Address: _____

Disc Changers

Up to 3 of the same brand are supported per FireBall.

#1: Brand:_____Model:_____ Serial Number:_____

#2: Brand:_____Model:_____ Serial Number:_____

#3: Brand:_____Model:_____ Serial Number:_____

Audio Connections

☐ Analog Stereo ☐ Optical Digital ☐ Coax Digital ☐ 5.1 Analog

Video Connections

☐ Composite ☐ S-Video ☐ Component

Optional Accessory Checklist

☐ Escient Touch Panels _____
☐ Extra IR remotes _____
☐ Extra IR keyboards _____
☐ S-Link Cables _____
☐ RS-232 Cables _____
☐ Ethernet Hub _____
☐ Extra Ethernet Cables _____

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HOME NETWORKING PRIMER

An overview of the different types of home networks

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Home Networking F.A.Q. (Frequently Asked Questions)

Q: What is Home Networking?
A: Home networking refers to technology that connects computers and other electronic devices for the purpose of sharing audio, video, peripherals, or a broadband Internet connection.

Q: How much does it cost?
A: Basic networking (linking PCs to share a printer) costs about $50 for Ethernet cards and cables. More elaborate setups to split a broadband connection cost more. Wireless and Powerline networking products are about two times more expensive but are somewhat easier to set up and more convenient.

Q: Do I really need a home network?
A: For households with more than one PC, a simple home network is worth the expense. Rather than buy a dedicated peripheral for each PC, one can be shared. Even better, but more complicated to set up, is splitting a broadband connection among several PCs.

Q: Can I mix and match networking products from different vendors?
A: Yes, but unless you're technically proficient, this isn't advised, particularly for newer wireless networks. That's because there are competing standards for wireless, and they don't all communicate correctly. Even products that support the same standard, such as 802.11b, don't always work together smoothly.

Q: Who makes networking products?
A: Several companies make wired and wireless network products for the home. Some of the most prominent are:

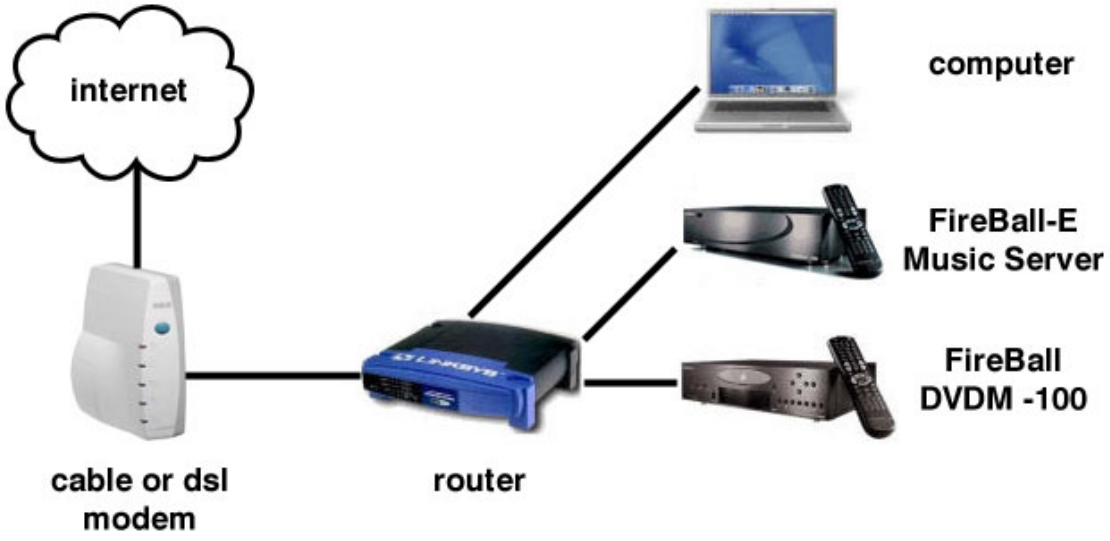
- Linksys
- 3Com
- Intel
- D-Link
- NetGear
- Apple Computer
- Cisco
- Belkin

Types of Networks

Ethernet: 10/100Mbps

The most popular network method because of the low price of the network cards, reliability and speed; but it can be a pain to run the wires through your home. Ethernet networking is built into most modern computers and the current Escient FireBall product line. There are many companies who provide ethernet networking products and they are available at any computer or electronics retailer.

Here is a sample Ethernet Network with a cable or dsl modem connection to the Internet. A "Router" is used to connect multiple Ethernet Devices (including a FireBall-E Music Server and a FireBall DVDM-100) to share a single broadband Internet connection. Each device needs to be connected to the router using an ethernet cable.



Sample Ethernet Network

Powerline Networking

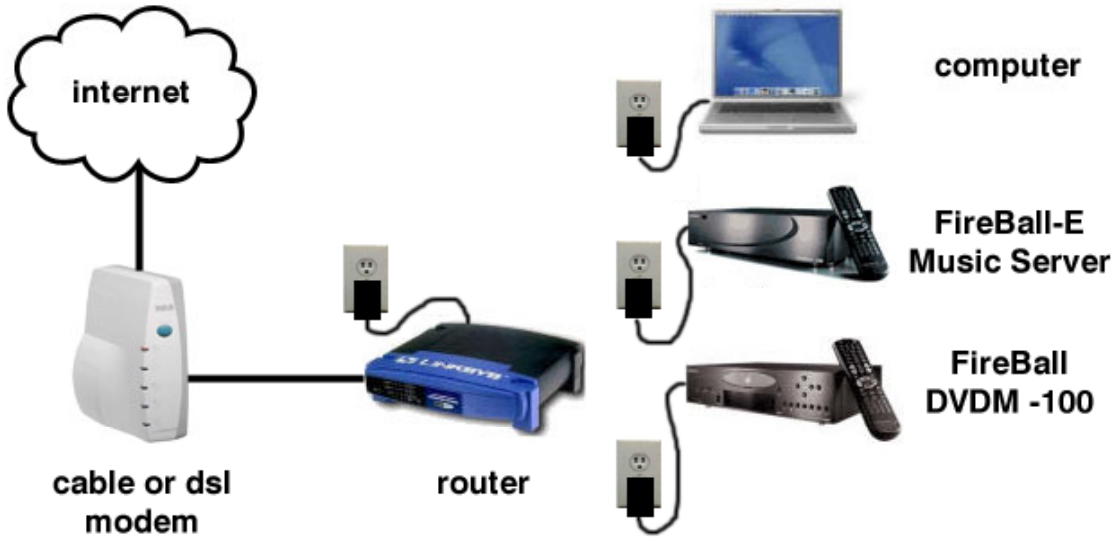
Powerline Networking (also called HomePlug Networking) allows easy network setup across existing 110V electrical outlets. It works with 2 & 3 prong standard 110 volt electrical outlets, transfers data at speeds up to 14 mbps (faster than 802.11b wireless) and it is compatible with 10Mbps or 10/100 Mbps ethernet products.

Powerline adapters are available from the following companies:

- Asoka Powerline
- Belkin
- Corinex Powernet
- DLink

- Gigafast Ethernet
- IOGear
- Linksys
- Netgear
- Phonex Broadband
- Siemens
- ST&T Corporation
- Telkonet

Here is a sample Powerline Network with a cable or dsl modem connection to the Internet. Again, a “Router” is used to connect multiple Powerline Devices to share a single broadband Internet connection. Ethernet cables are used to connect the network devices to the Powerline adapters. You will also need a Powerline adapter at the Router location so that the Powerline signals can be connected to the rest of the network and access Internet connection.



Sample Powerline Network

Wireless 802.11b: 11 Mbps

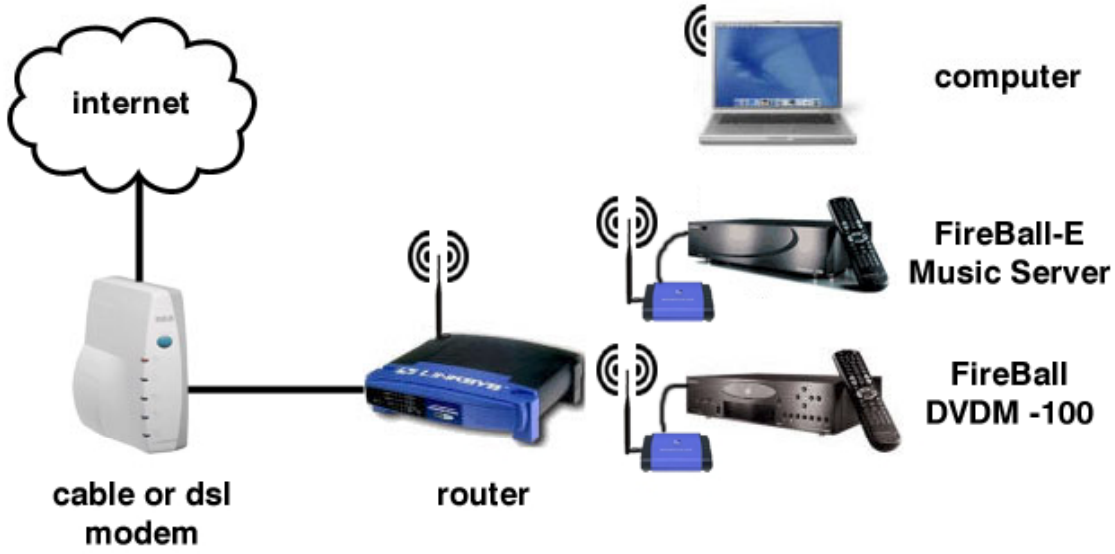
802.11b is now the standard for wireless networking in both the home and business. It has become inexpensive, has good speed but may not be appropriate for some secure communications.

Wireless 802.11g: 22/54 Mbps

An upgrade to 802.11b, the 802.11g standard doubles the speed of 802.11b while retaining compatibility.

Here is a sample wireless network where the FireBall=E Music Server and FireBall DVDM-100 are each connected to an Ethernet to Wireless adapter. The computer has built-in wireless connectivity and the router is a hybrid router/wireless access point. The wireless devices are

able to access the shared broadband Internet connection because the router/access point provides the “bridge” between the wireless and wired networks.



Sample 802.11 Wireless Network

HomePNA 2.0 (Phone Line): 10Mbps

HPNA, PhoneLine or HomePNA networking works over the existing copper telephone wires in your home without interfering with voice or DSL communications. HomePNA 3.0 will push the speed up to 100Mbps when it comes out.

Escient FireBall-H products use HomePNA networking.

Alternative Networking Technologies

Alternative networking technologies are often used to supplement a primary network. They are not as popular as the aforementioned networks, but are still available. The can be 'bridged' to other networks to create a single integrated network. You can buy different network adapters to ‘bridge’ or connect one type of network to another.

Ethernet: Gigabit - 1000TX

The fastest network technology available to the home or small business, gigabit ethernet comes built in to most Mac systems now. As the name suggests, gigabit ethernet runs at 1000Mbps

Wireless 802.11a: 54 Mbps

A new standard for wireless ethernet, 802.11a is incompatible with 802.11b and g. It does however offer amazing speeds for a wireless network, but is not as popular as 802.11g

Firewire Networking - 400Mbps

Modern operating systems now support networking over firewire cables. Most appropriate for short distances, firewire is FAST and inexpensive to install. Great for transferring huge video files between computers! 800Mbps firewire is also available on new Mac systems.

Bluetooth

A new ‘personal’ wireless networking technology, Bluetooth has recently made an appearance. It is easy to implement and will be VERY inexpensive soon. Because of its low speed (1.5Mbps) it is not appropriate as a replacement for other networks but IS valuable for connecting peripherals.

Wireless HomeRF 2.0: 10Mbps

Developed to compete with 802.11b, HomeRF made a brief appearance and died off. Siemens and Proxim were the main supporters.

Ethernet Networking

Ethernet is the most popular and considered the networking topology standard for most computer connections. There have been many kinds of Ethernet, but the most popular is 10/100Mbps running over copper twisted pair wires. 100Mbps Ethernet is also called 100baseT and Fast Ethernet.

All current Escient products support built-in Ethernet networking.

Note: Older Ethernet standards ran on COAX cable and were referred to as 10base2 Thin Ethernet and 10base5 Thick Ethernet. Some hubs still have a coax connector to bridge together twisted pair and Thin Ethernet networks.

A newer Ethernet standard called Gigabit Ethernet or 1000baseT also can run over copper wire but hubs ands switches are VERY expensive.

10/100 Ethernet

Connections:

Connections between 10/100 Ethernet adapters are made using cables that run to an Ethernet HUB or Switch. Hubs electrically connect your computers together and switches act like traffic cops making your network more efficient.

When only two computers are present. A special kind of Ethernet cable can be used called a “CROSSOVER cable.

Cables:

10/100 Ethernet cables have 8 wires, of which 4 are used for data. The other wires are twisted around the data lines for electrical stability and resistance to electrical interference. The cables end in RJ-45 connectors that resemble large telephone line connectors.

Two kinds of wiring schemes are available for Ethernet cables. Patch cables and Crossover cables. Crossover cables are special because with a single cable, two computers can be directly connected together without a hub or switch. If a cable does not say crossover, it is a standard patch cable. If you are connecting computers to a hub or switch, you need patch cables.

There are also different grades of cable quality. The most common are CAT5, CAT5e and CAT6. CAT5 is good for most purposes and can transfer data at 100Mbps. CAT5e is rated for 200Mbps and CAT6 is rated for gigabit Ethernet. Run CAT5e whenever possible because there is usually not a cost difference from CAT5 if you look hard enough.

Maximum distances:

For all twisted pair Ethernet, 100Meters is your maximum distance.

Ethernet to Fiber

Ethernet to Fiber media converters are starting to come down in price - they can be found for under $150. When 100Meters is not enough distance, an Ethernet to fiber media converter can

be placed on each end making the maximum distance something like 40Km. Another use for fiber is electrical insulation. Some people like to run cables underground between homes. If you run CAT5 cable, the homes have different 'ground potentials' and you will burn out network card during any electrical storm. The solution is fiber! Run fiber between the homes or run a pair of fiber converters on one end of the cable with a short fiber run. This will electrically separate the two homes.

Wireless Networking with 802.11b

In 2000, 802.11b became the standard wireless networking technology for both business and home. The WiFI organization was created to ensure interoperability between 802.11b products. With a realistic throughput of 2.5-4Mbps, it is fast enough for most network applications and tolerable for file transfers.

Wireless to Ethernet Bridges can be used to connect Ecient products to your Ethernet network when you can't run ethernet cables to your equipment.

Access Points

An 802.11b wireless network adapter can operate in two modes, Ad-Hoc and Infrastructure. In infrastructure mode, all your traffic passes through a wireless 'access point'. In Ad-hoc mode your computers talk directly to each other and do not need an access point at all.

Access point varieties

Access points come in three varieties -- bridge, NAT router and NAT router+bridge. A bridge connects a wireless network to a wired network transparently.

Communication is possible between both networks in both directions. A NAT router type routes traffic from your wireless network to an Ethernet wired network, but it will not route traffic back. This type can be used to share an Internet connection. Lastly, there are hybrid NAT router + Bridge devices that bridge your wired and wireless networks, then route them both to the internet using a single IP address. This is good for sharing an Internet connection when you have both wired and wireless computers in your home. These are often called Cable or DSL routers with wireless access points built-in.

Security

Any network adapter coming within range of another 802.11b network adapter or access point can instantly connect and join the network unless WEP – Wireless Encryption Protocol – is enabled. WEP is secure enough for most homes and business, but don't think it can't be hacked. There are several flaws in WEP making it unusable for high security applications. At this point, it takes some serious hacking abilities to bust into a WEP enabled network so home users should not worry.

WEP and Speed

WEP 'WILL' slow down your wireless network. Expect a 20-50% reduction in speed depending on the products you are using. The speed issue is often the result of an access point without enough processing power.

Encryption

Encryption comes in 64bit and 128bit key varieties. All your nodes must be at the same encryption level with the same key to operate. 40bit and 64bit encryption is the same. it's just a matter of how the manufacturer decided to label the product. Often 128bit cards can often be placed in 40/64bit mode.

Form Factors

802.11b adapters come in two major form factors. PC Cards for laptops and USB for desktops. In addition, there are PCI adapters that let you plug a PC Card into a PCI Slot.

Speed

A full strength 802.11b signal will get you about 3.5-4.5 Mbps without WEP enabled. With WEP enabled, expect 2.5-3.5 Mbps. As you put walls and distance between your wireless adapter and your access point, your speed will drop. Don't expect to put more than a few walls between you and your access point.

Technical Specs

802.11b is a half duplex protocol – it can send OR receive, but not both at the same time. In addition it uses the same 2.4 GHz range as many cordless phones so plenty of opportunity exists for interference. Use 900Mhz cordless phones if using 802.11b in the same area.

Distance

Distance will very widely depending on which wireless networking device you are using, what kind of antenna it uses, the construction materials in your home, electrical interference, and capabilities of the wireless receiver. Some people have used directional antennas to get some serious range out of their 802.11b products – miles!

Faster Wireless 802.11g

The 802.11g spec was drafted in Nov of 2001. 802.11g operates on the same frequency as 802.11b and is backwards compatible. The planned common implementation of consumer 802.11g devices operate at a maximum of 22Mbps but can communicate at up to 54Mbps. 802.11g is sometimes called 'Turbo Mode' on some 802.11b cards.

Like 802.11b, 802.11g is subject to the same interference and security issues. It operates at 2.4Ghz and may cause problems with 2.4Ghz cordless telephones.

When a 802.11g product communicates with an 11Mbps 802.11b product, it drops down to 11Mbps or less depending on signal strength. In other words, if you purchase an 802.11g product for use with an 802.11b access point, expect only 11Mbps.

Powerline Networking

Powerline networking has existed in a few forms in the past, the latest specification is called HomePlug and runs at 14Mbps. HomePlug uses your existing home electrical wiring to transfer data.

HomePlug does not interfere with your existing electrical equipment or home automation devices like X-10, CEBus, and LONworks. HomePlug also encrypts all data with 56bit DES encryption to ensure that your neighbors can not eavesdrop on your network traffic. Note: encryption is usually not enabled by default and must be 'turned on' using software provided by the devices manufacturer.

The HomePlug specification incorporates a technology called PowerPacket. This new technology is what makes HomePlug different from the old Powerline networks. PowerPacket eliminates noise from electrical appliances like hair driers and televisions plus it offers security.

Powerline network adapters come in PCI and USB versions but are fairly expensive right now - about $50 to $100 per computer. There are also Powerline to Ethernet bridges and Powerline broadband routers with ethernet bridges built-in, in the same price range.

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FireBall Client-Server Installation Guide

A Guide to Installing Multiple FireBall Products

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FireBall Client Server Products

Servers

A FireBall Server is a Fireball media management system that is capable of "serving" media to other FireBalls over a network. Currently there are three FireBall products which can serve media to other FireBalls.

- FireBall (40GB with HPNA networking)
- FireBall E-40
- FireBall E-120

Clients

A FireBall Client is a FireBall that can play media from a FireBall Server over a network. Currently there are three different FireBall products that can play media from FireBall servers:

- FireBall (40GB with HPNA networking)
- FireBall MP-100
- FireBall DVDM-100

Client Server Combinations

The original FireBall is a client and a server at the same time. It uses a peer-to-peer client and server networking scheme that allows 2 or more FireBalls to automatically synchronize their MP3 music libraries so that the contents of both the client and server appear in the Music Guides of each FireBall. You can create a rather large network providing each room access to the combined FireBall music library.

The FireBall-E servers are only servers and can not act as clients to other FireBall servers.

The newer FireBall clients (the MP and DVDM) use a standard client-server networking scheme. The following table indicates which servers are compatible with which clients.

Server / Client	FireBall	FireBall-E 40/120
FireBall	Yes	No
FireBall-E 40/120	No	No
FireBall-MP	Yes	Yes
FireBall DVDM-100	Yes	Yes

Limitations

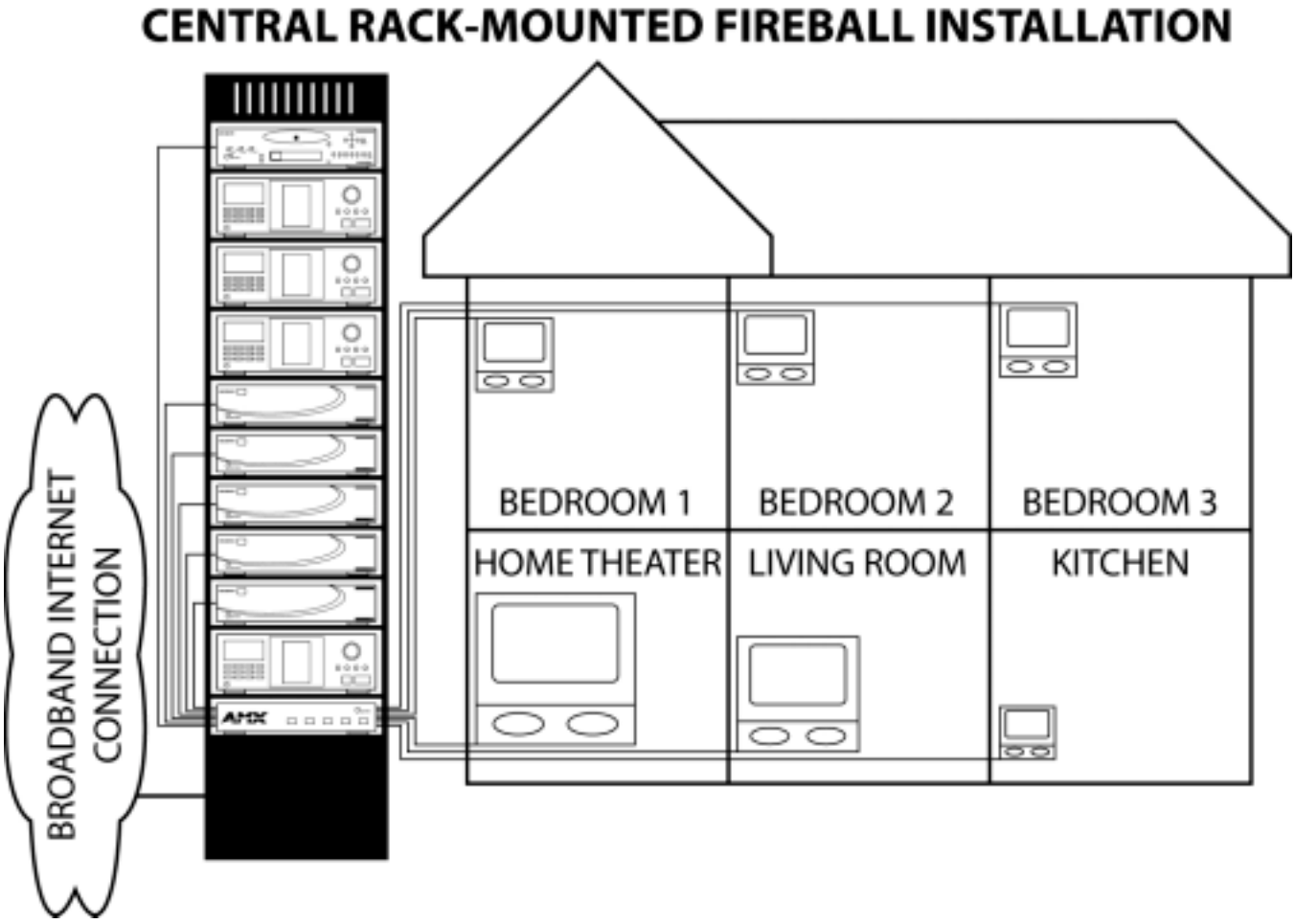
- Client-Server networking is limited to the same local subnet. You can not stream over the Internet.

- Only MP3 audio files can be streamed to clients.You can not stream WAV files, CDs from the internal drive, or from CDs located in external changers.
- Playlists that contain only MP3s will be available on the clients.
- Playlists that contain MP3s and non-streamable tracks will NOT appear on the clients.
- You may have an unlimited number of clients on the network, but you can only stream to 4 clients simultaneously.
- Movies can not be streamed.
- Internet Radio can not be streamed (but it is available on all standalone products).

Locating the FireBall Clients and Servers

Central

If you locate your FireBall clients and servers in a central location such as an equipment or utility room, you will need to use a third party audio/video distribution system to deliver sound and picture to each room. This type of installation allows great flexibility for delivering music, movie, and Internet radio to every room of the home or office and provides the professional installer with tools for almost any installation.

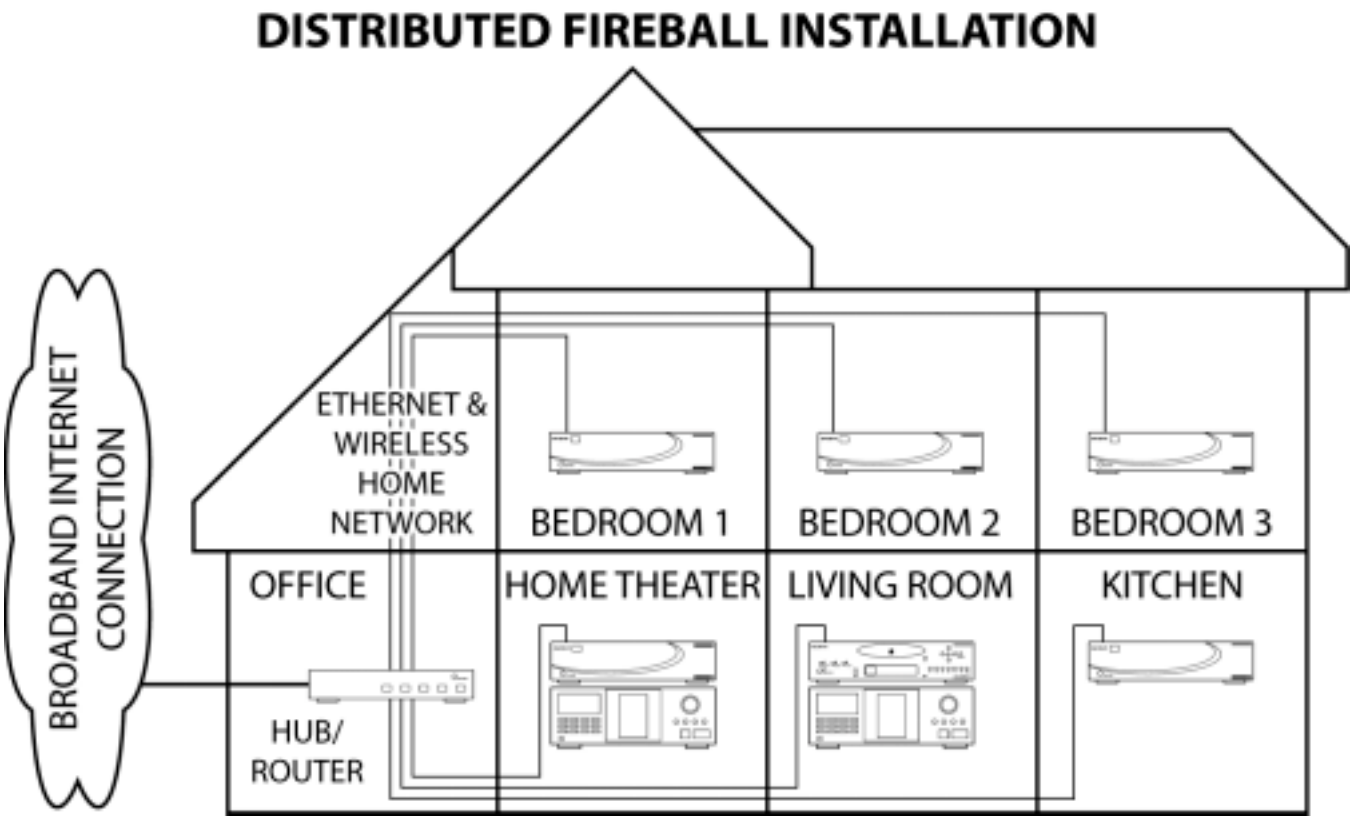


FireBall is built from the ground up with many features that allow you to centrally locate and remotely control your FireBall clients and servers, such as:

- Direct IR input
- Two way serial control over RS-232
- Two way serial control over ethernet
- Wireless IR remote and Keyboard options
- Support for 4 different IR banks (4 IR zones)
- Templates for integration into many third party wired and wireless IR distribution systems
- Philips and Marantz Pronto remote control templates

Distributed

A distributed FireBall installation means that your FireBall Servers and Clients are physically distributed or located in different rooms. Distributed FireBalls communicate over a wired or wireless network to share access to your media.

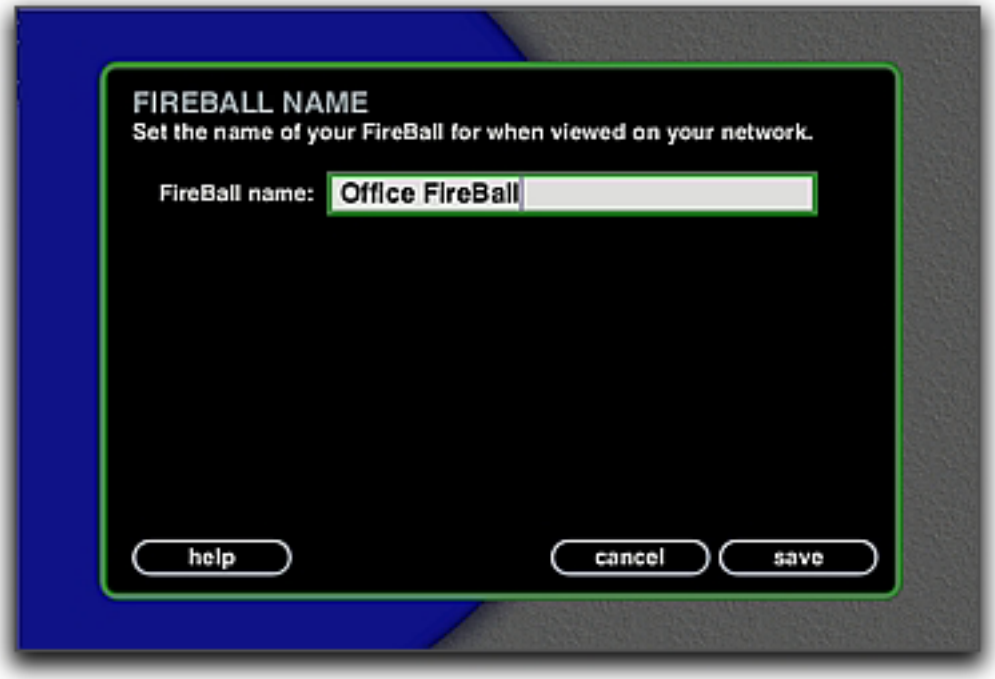


The biggest advantage of a distributed client-server system over a central system is that everything you need is built into FireBall. Networking, zoned IR, independent high-quality audio and video feeds, as well as support for an unlimited number of rooms or zones using standard ethernet wiring. (Note: only 4 clients can stream from the same server at one time).

Configuring a FireBall Server

Every FireBall capable of server functions is automatically enabled to server MP3 audio streams whenever it is plugged in and properly configured for your network.

It is recommended that you give each of your FireBall servers a unique name that describes it's location using the **FireBall Name** screen which can be accessed from **Setup/Internet Configuration/FireBall Name**. Names like "Living Room", "Home Theater", "My Music Server" are all good examples.



Configuring a FireBall Client

Networking

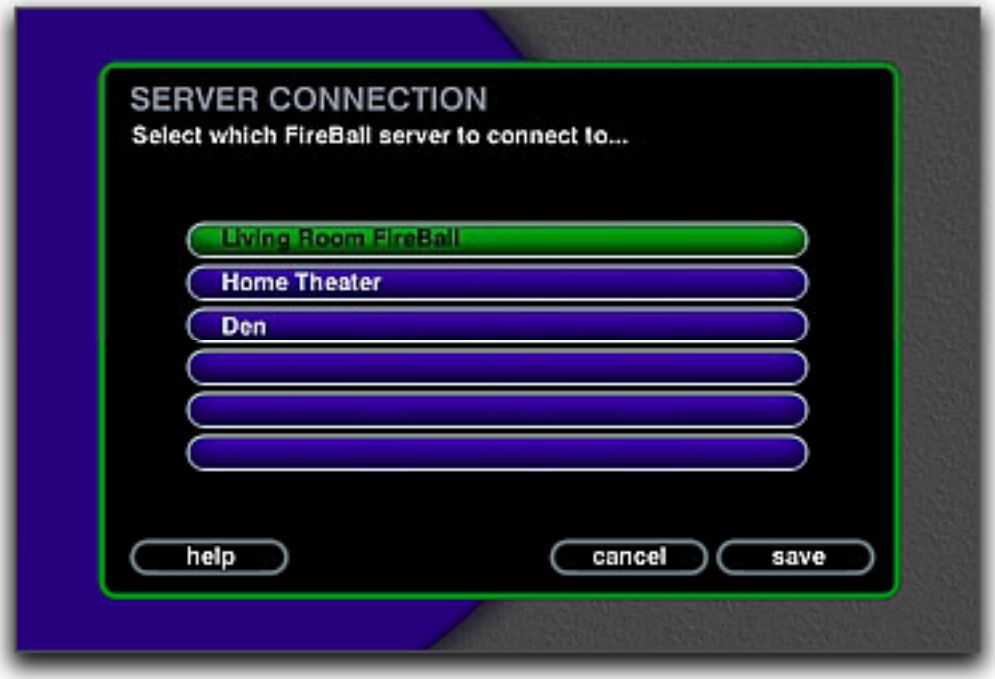
Each FireBall client must be on the same network as the server. This document will assume that you have properly connected your FireBall client to the same network as your FireBall server.

Please refer to the ***HomeNetworkingPrimer*** support document on the Escient web site for more information about home networking.

Server Selection

FireBall clients will automatically select the first server it sees on the network and connect to it upon startup.

If you have more than one server on your network, you can manually select a different server using the **Server Connection** screen which can be accessed from **Setup/Internet Configuration/Server Connection**.



The Server Connection screen displays a list of FireBall Servers found on your network by their default or user defined “FireBall Name”.

Once you select a server and save your selection, press MUSIC to view the Music Guide on the client. In a few moments, the Music Guide will display the contents of the FireBall server. You can then select and play anything from the Music Guide just as you would from a single FireBall.

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PC Integration

A Guide to Using FireBall with Windows XP

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FireBall to PC Networking Basics

Overview

With the new Network File Sharing feature built into FireBall, you can now access your FireBall from your PC using your home network. Having access to your FireBall allows you to do things like backup your music files, import music files from your PC to your FireBall, remotely control your FireBall from your PC, and share your FireBall based music with iTunes (including Apple iPod support) and other PC music players such as Windows Media Player, MusicMatch, WinAmp, and Rio Media Manager. This document will explain how to do all of these things using your PC and your FireBall over your home network.

Requirements

In order to connect to your FireBall, you will need to have your FireBall and PC on the same network. This document assumes that you already have a home network correctly setup and configured. If you need help setting up your network, please review the *"Home Network Primer*" available on the Escient web site, or contact your Escient dealer.

The following items are required for connecting your PC to your FireBall:

- Properly configured Ethernet home network
- Fireball E2 Music Manager or DVDM Media Manager with and internal hard drive and File Sharing Support
- PC computer with 64MB of RAM and Windows XP Installed
- iTunes 4.5 or later (or other PC music player applications)

Connecting to Your FireBall

FireBall uses a type of file server commonly called “Windows Networking” or “CIFS/SMB”. CIFS/SMB networking is found in most Microsoft operating systems and allows PCs to connect and share files over a network.

Setting up the FireBall Server

Before you can connect to your FireBall you must configure FireBall’s server settings. Follow these steps to configure your FireBall server:

1. Using your FireBall remote, press **SETUP** to display the Setup Menu.
2. Select the **NETWORK** menu item.
3. Select the **SERVER SETTINGS** menu item to display the Server Settings screen.
4. Enter a name for your FireBall using the remote or keyboard. Do not use spaces in the name.
5. Select the **SAVE** button to save your settings.
6. Press **SETUP** again to exit the Setup menus.

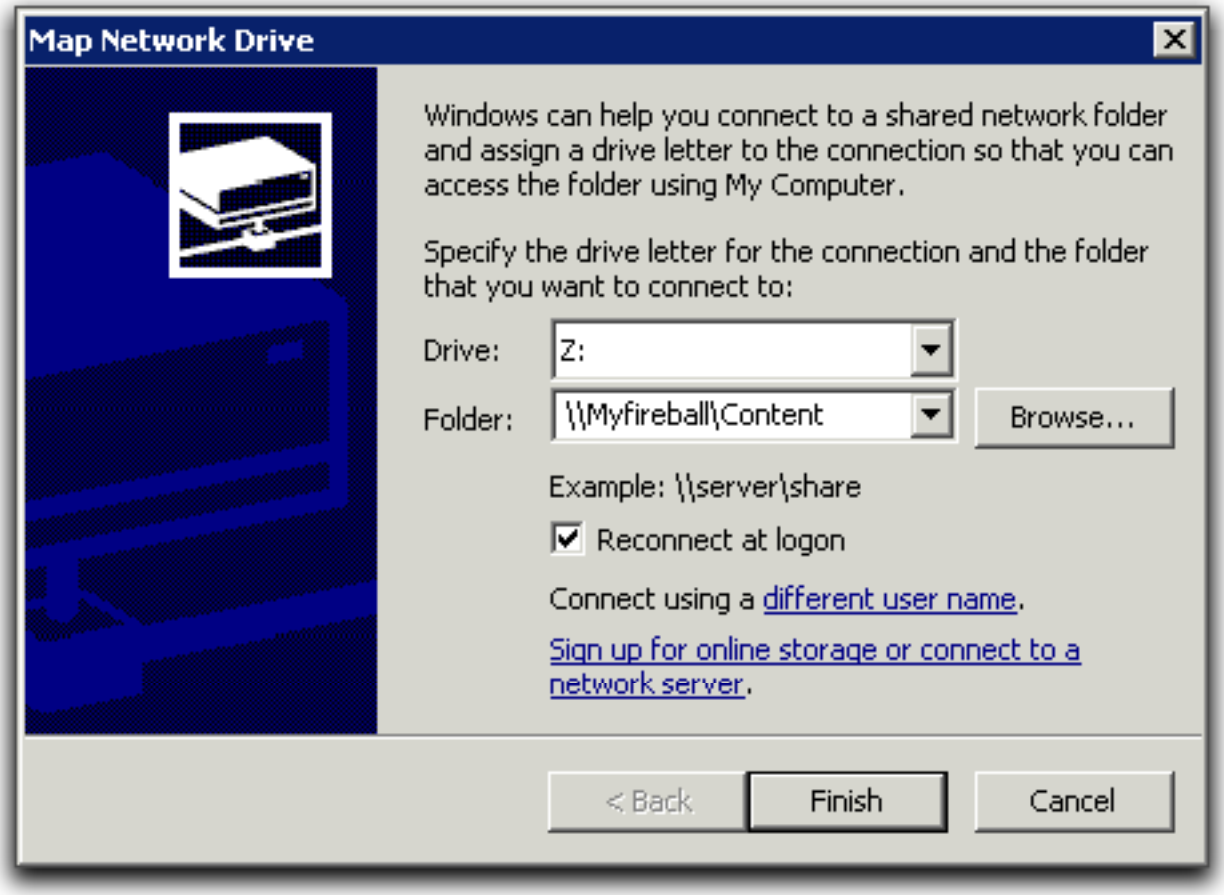
SERVER SETTINGS
Enter a name for your FireBall server. This is the name you will see when seleting a server from FireBall-MP players, wireless web pads and web browsers.
FireBall name:
MyFireBall
Enter a password to limit access to FireBall's built-in web server or leave it blank if you do not want to use a password. There is no 'user name' when connecting to a FireBall server using a web browser.
Web Password:
help
cancel
save

Server Settings screen

Mount Your FireBall on your PC

To mount your FireBall's **CONTENT** volume which contains all of your music files, right click on "My Computer" and select "Map Network Drive" from your PC. Choose an available drive letter, then type in the name of your FireBall.

Example: suppose you named your FireBall "MyFireBall" in the Server Settings screen, you would then enter **\\MyFireBall\Content** in the Folder name, and click Finish.


Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Z:
Folder:
\\Myfireball\Content
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

Your FireBall's CONTENT volume will now be accessible to any application on your PC and will appear as another mounted volume in the Windows Explorer.

Backing Up Your FireBall

Once you have successfully mounted your FireBall's Content volume on your PC, you now have access to the music content contain on the FireBall's internal hard drive. Having this access affords you the opportunity to backup your FireBall's music collection. There are many ways to backup the music files including copying files to another drive mounted on your PC or using third party backup software to perform automated backups each night.

Note: Playlists, Internet Radio Stations, and System Settings are not backed up. Only the actual music files are available for backup within the Content volume mounted on your PC Desktop.

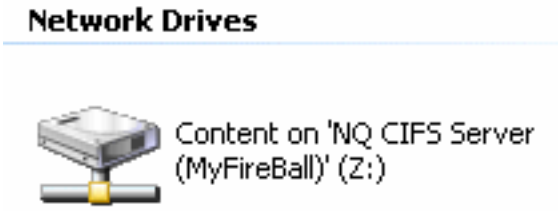
One Time Backup

If you are only going to make a one time backup of the FireBall for safe keeping, it is recommended to do a simple drag and drop of the Content volume to another hard drive or volume mounted on your PC. This one time backup method is useful if your FireBall music collection is not going to change much from day to day and you simply want to preserve a copy as a failsafe to some catastrophic event such as theft, loss by fire, or hard drive crash. This is typically done by an installer or dealer who wants to keep an offsite copy of the installed FireBall for safety reasons.

Escient recommends that a 300 GB external USB drive be used for each full FireBall backup and stored in a different physical location from the FireBall to reduce the possibility of loosing both the FireBall and the Backup Drive in a single catastrophic event.

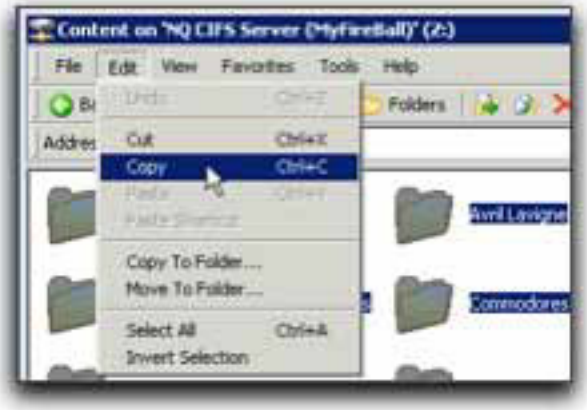
Follow these steps to backup all music files from your FireBall to an external hard drive connected to your PC.

1. **Locate the CONTENT volume** in Explorer given the drive letter you assigned to it.



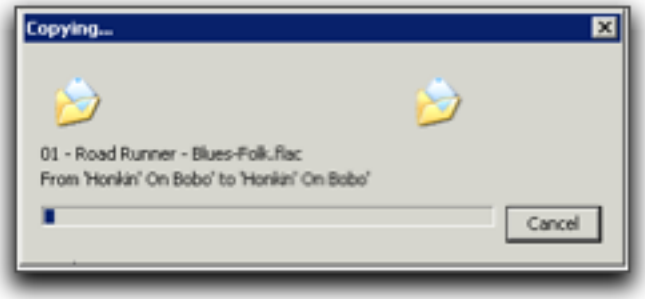
2. Open the CONTENT volume, choose **Select All** from the edit menu to select all of the files and folders in the CONTENT volume.

3. While all the items on the Content volume are highlighted, select COPY from the Edit Menu.



4. Go to your Backup drive and choose PASTE from the Edit Menu.

5. All of the items in the current selection will now be copied to the backup drive. Depending on the size of your music collection, this may take a while to complete. The FireBall will transfer about 5GB of data per hour (120GB a day). At this rate, it will take approximately 2 and a half days to backup an entire 300 GB drive over an Ethernet connection.



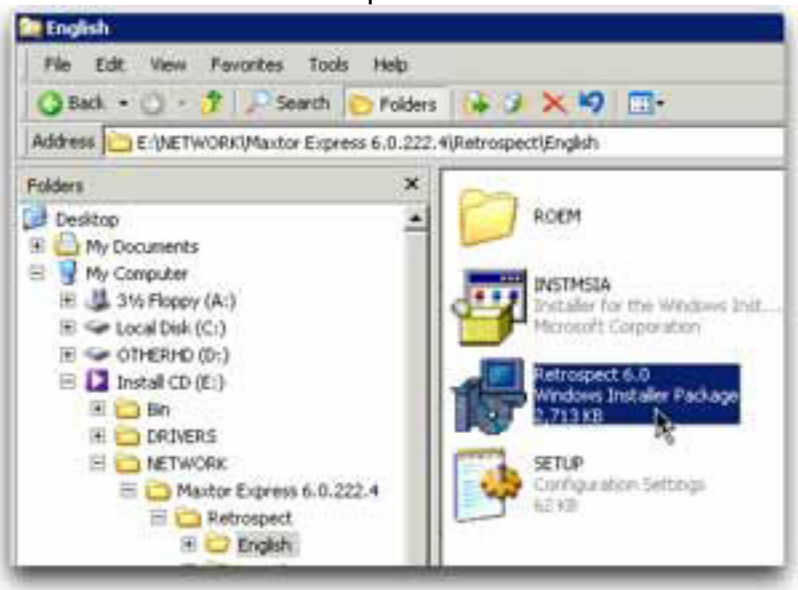
Automated Backups

If you are going to add new music or edit the contents of your FireBall frequently, it is recommended to setup an automated backup system. This type of backup requires the **FireBall Backup Kit** (available from your Escient dealer) and a computer that can access your FireBall over the network. Each night the contents of your FireBall that have been added, deleted, or edited will be copied to the backup folder on your computer. The backup software manages which files have changed compared to what is in the backup folder and copies only those files which have changed, keeping the FireBall's CONTENT volume in sync with a duplicate volume.

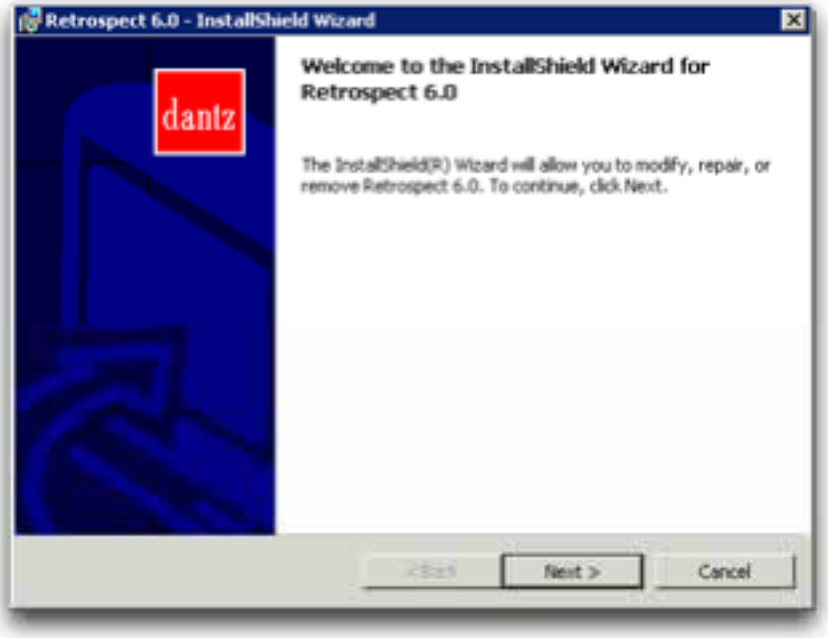
Installing the Retrospect Backup Software

The Escient "**FireBall Backup Kit**" makes backup easy by using the included Retrospect backup software. Follow these steps to install the Retrospect backup software onto your PC.

1. Insert the Maxtor installation CD into your PC's CD-Rom drive. After a few seconds, the Maxtor Select Language screen will appear.
2. Select the EXIT button to quit the installer. Do not use the automatic installer to install Retrospect.
3. Use the Explorer and browse to the Retrospect –English directory at: My Computer/Install CD/NETWORK/Maxtor Express 6.0/Retrospect/English
4. Double-click the Retrospect 6.0 Installer icon.



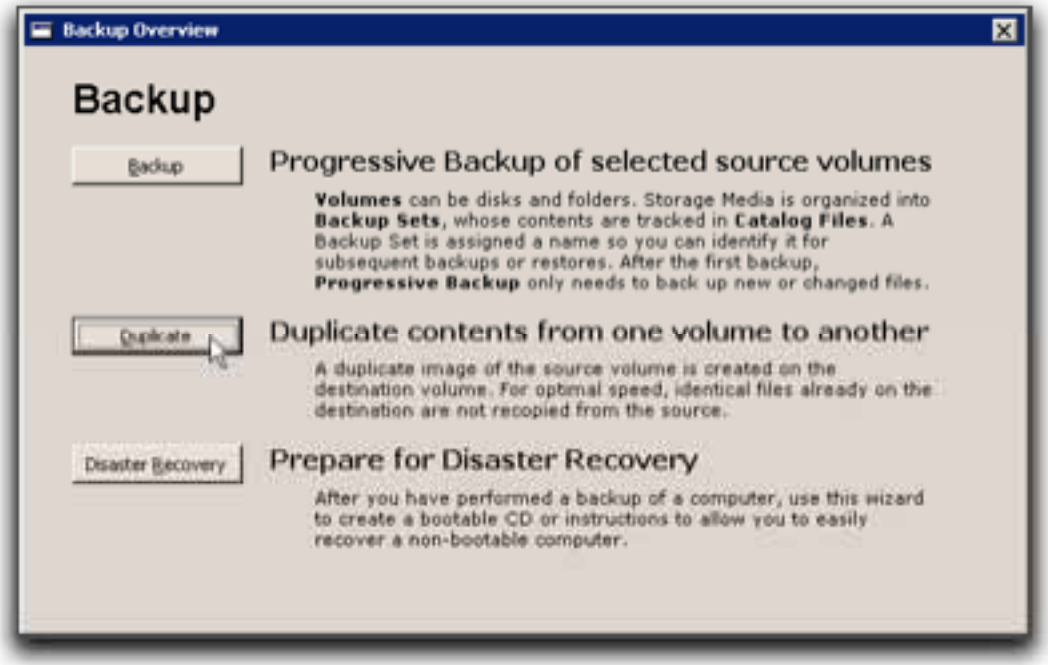
5. Follow the on screen instructions to install the Retrospect software.


Retrospect 6.0 - InstallShield Wizard
dantz
Welcome to the InstallShield Wizard for Retrospect 6.0
The InstallShield(R) Wizard will allow you to modify, repair, or remove Retrospect 6.0. To continue, click Next.
< Back
Next >
Cancel

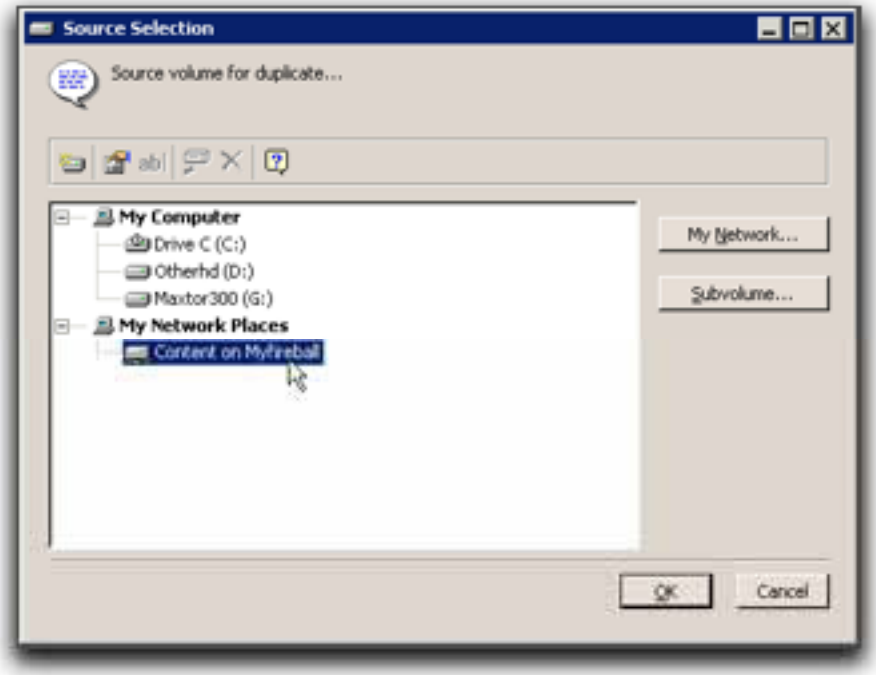
Backing Up Your FireBall Every Night with Retrospect

1. Follow the instructions above for installing the Retrospect 6.0 software and connecting the external hard drive.
2. **Mount** your FireBall's **CONTENT** volume (see above for instructions)
3. Launch Retrospect 6.0

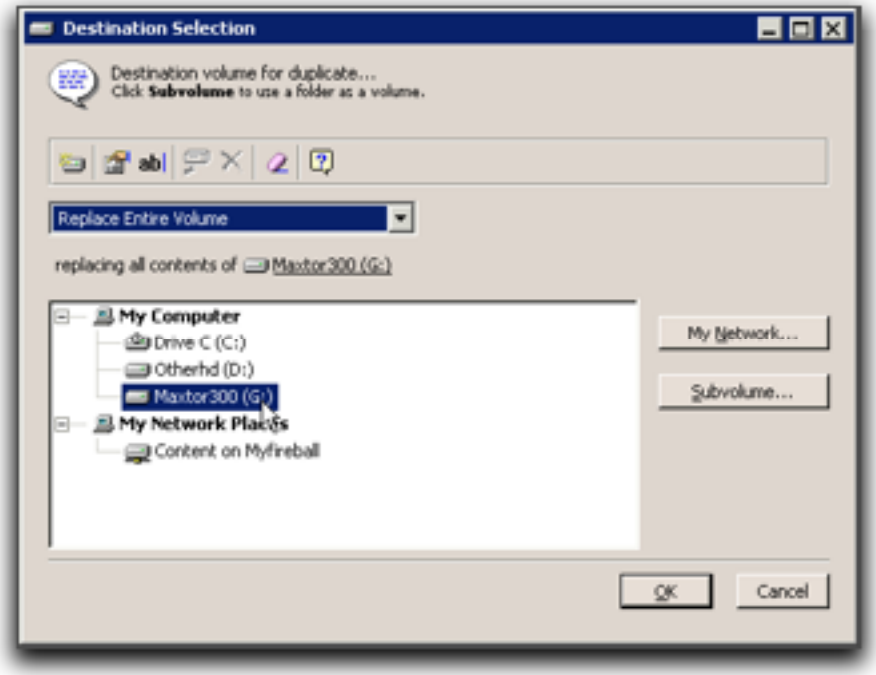
4. Select the **Duplicate** button.


Backup Overview
Backup
Backup
Progressive Backup of selected source volumes
Volumes can be disks and folders. Storage Media is organized into Backup Sets, whose contents are tracked in Catalog Files. A Backup Set is assigned a name so you can identify it for subsequent backups or restores. After the first backup, Progressive Backup only needs to back up new or changed files.
Duplicate
Duplicate contents from one volume to another
A duplicate image of the source volume is created on the destination volume. For optimal speed, identical files already on the destination are not recopied from the source.
Disaster Recovery
Prepare for Disaster Recovery
After you have performed a backup of a computer, use this wizard to create a bootable CD or instructions to allow you to easily recover a non-bootable computer.

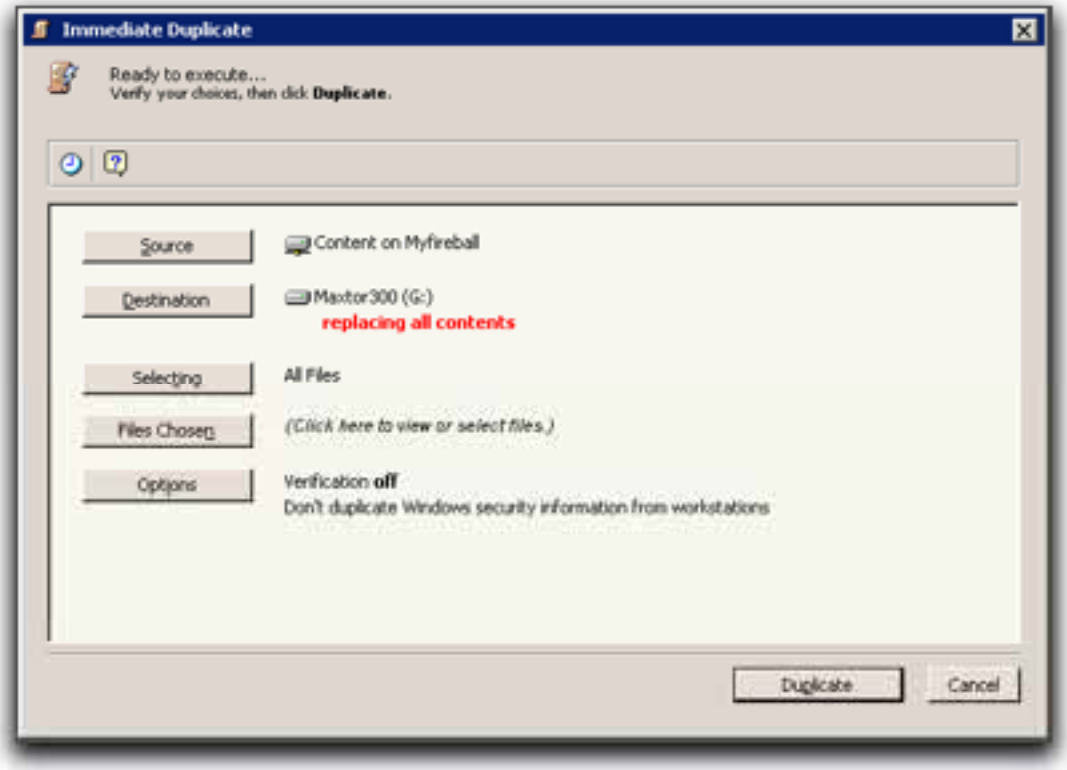
5. Select Source, then **CONTENT** as the Source volume, then the **OK** button



6. Select Destination, then select the **external Maxtor hard drive** as the Destination. Make sure that “Replace Entire Volume” is selected. Select the **OK** button

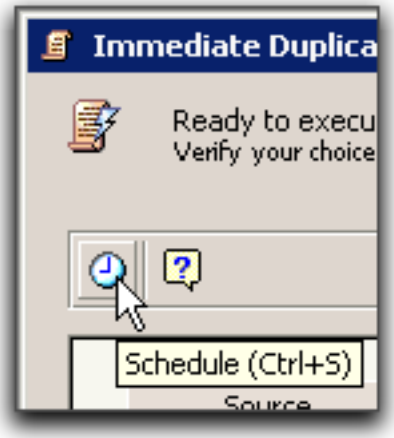


7. The following dialog is displayed.



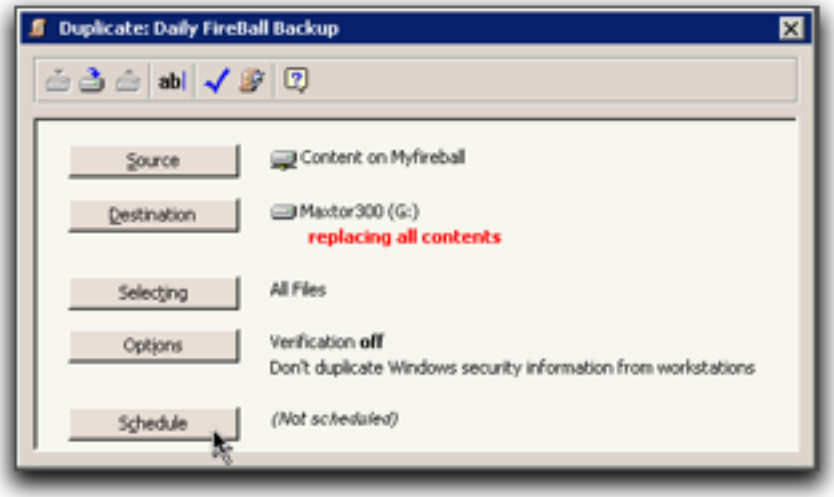
Note: If you want to turn off Verification, select Options and turn it off. Verification will verify that all files were backed up correctly, but will increase the overall backup time.

8. You can run the backup immediately by selecting the Duplicate button, or to schedule the backup to run every day, select the **Schedule** icon at the top of the toolbar (or just type Ctrl+S).

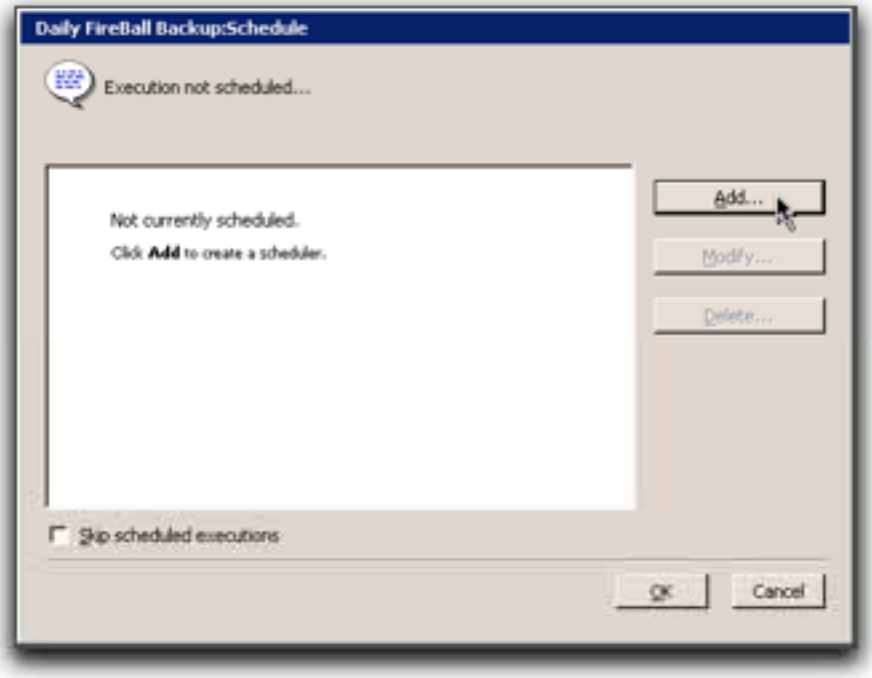


9. Name the new Schedule "**Daily FireBall Backup**" and select the New button.

10. When the following dialog is displayed, select the **Schedule** button.

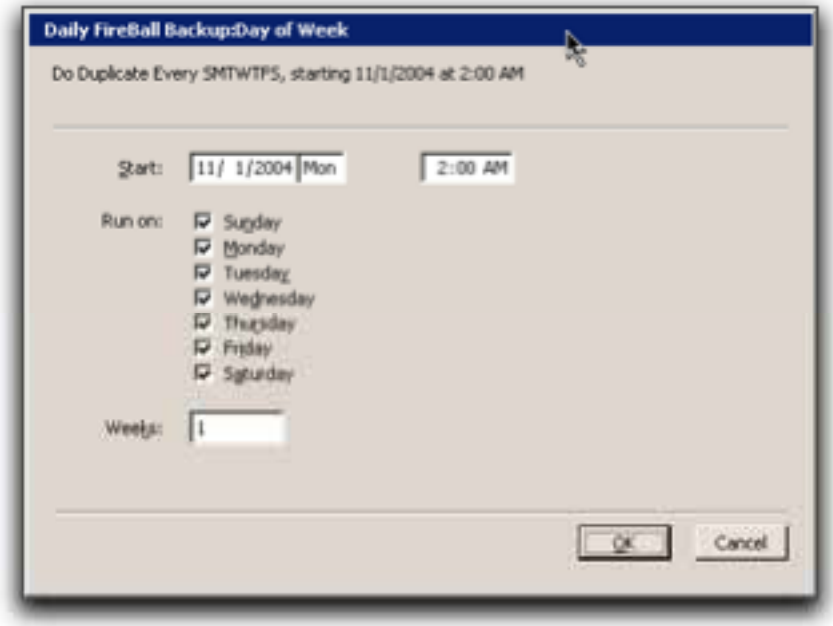


11. Select **Add** button to add a new schedule.

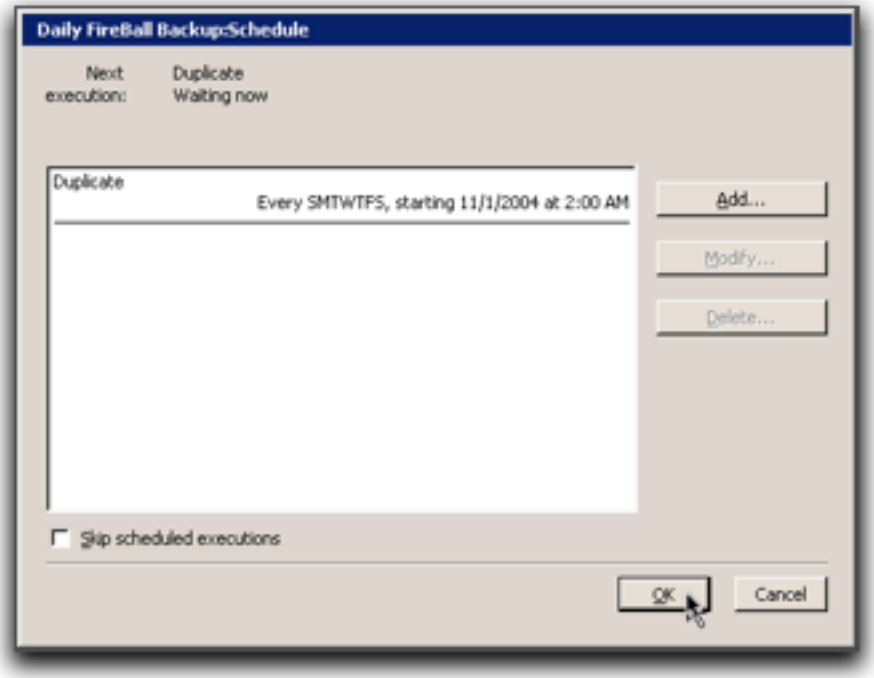


12. When the following dialog is displayed, select "**Day of the week**" then the **OK** button

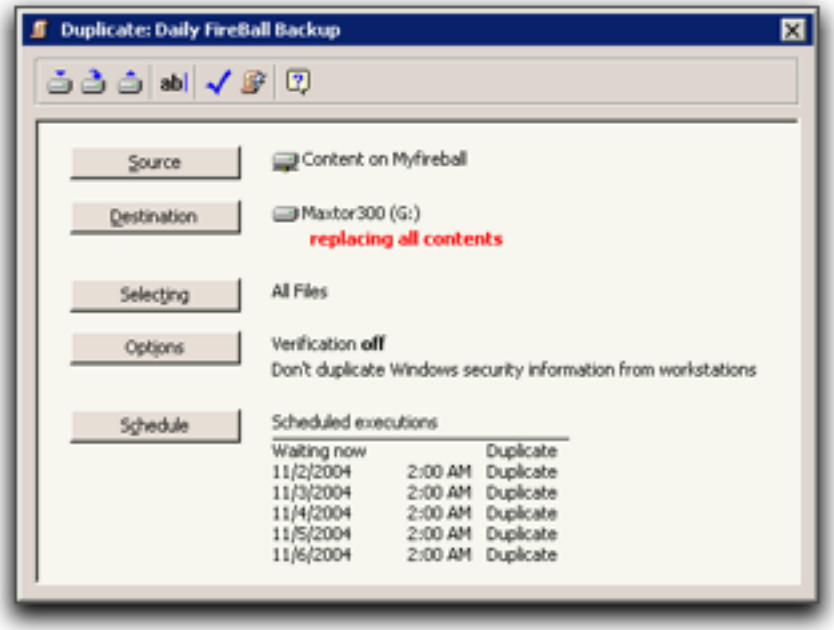
13. Select the start date (usually today), the start time (usually overnight when you are sleeping) and on which days to run the backup (usually every day). Select 1 week to have the schedule run every week. Select **OK** when you are done.



14. You should see the following dialog with your scheduled options. If this is correct, select the **OK** button.

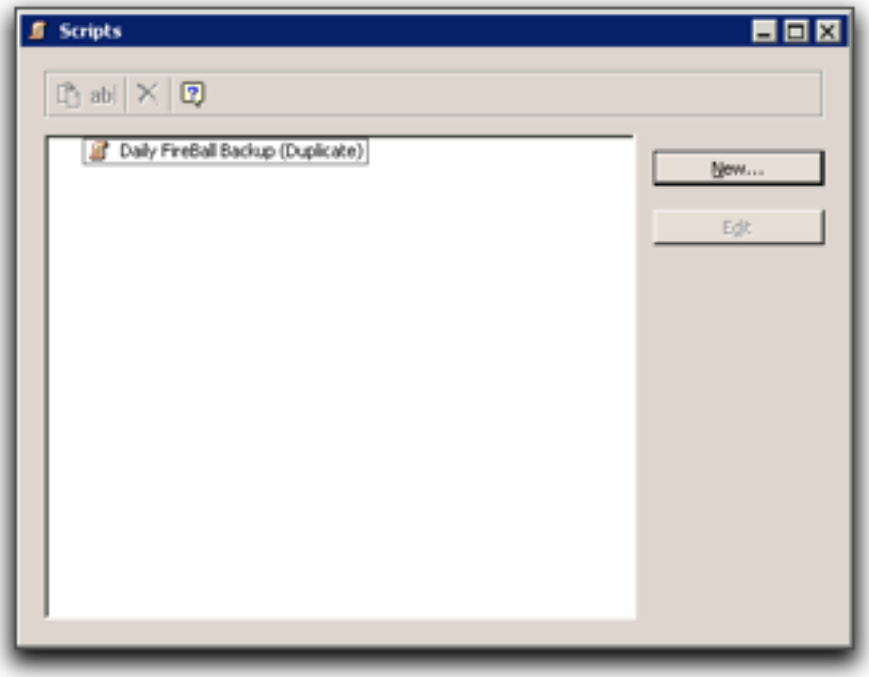


15. You should now have a Duplicate dialog screen that looks like this, with a series of scheduled execution dates listed next to “Schedule”.



16. Close all windows and Save if asked to do so. To verify that the Schedule is set, select Manage Scripts from the Retrospect sidebar.

You should see one script listed called “Daily FireBall Backup (Duplicate)”. You backup is now scheduled to run.



IMPORTANT!!!
Remember that your PC must be on and your CONTENT directory must be mapped on your PC in order for Retrospect to run automatically. Retrospect will launch automatically, you do not have to keep it running. For more detailed information on Retrospect, read the full documentation included on the Maxtor CD-Rom or visit the Retrospect web site at http://www.dantz.com.

Integrating with iTunes and iPod

FireBall supports iTunes and iPod integration through the FireBall Network File Sharing feature described above. Once your PC is connected to your FireBall over the network, you can access FireBall's music and use it from iTunes and sync it with your iPod.

Note: Other PC music player applications and portable MP3 players are also supported, however the following instructions are specific to Apple iTunes and the iPod. Please refer to the user's manual for your MP3 software for specific instructions about how to import and transfer MP3 files from a networked drive.

Please read the section ***Connecting to your FireBall*** before proceeding to make sure that you can mount FireBall's CONTENT volume on your PC Desktop.

What You Can Do

Once FireBall's is mounted on your PC Desktop, you can:

- Import FireBall MP3 music into iTunes
- Create iTunes Playlists
- Burn CDs using iTunes
- Sync Playlists and Music to your Apple iPod

What You Can't Do

Here are some things you **can't** do with iTunes:

- Copy Music from an iPod to FireBall
- Copy iTunes Playlists to your FireBall
- Import FLAC files

Note: WinAmp is the preferred PC Music Player for playing FLAC files stored on the FireBall music server. A FLAC plugin for WinAMP is required to play the FLAC files. Please refer to the http://flac.sourceforge.net/ web site for more information on the WinAmp FLAC plugin and other PC players that support FLAC playback.

Importing Music Into iTunes

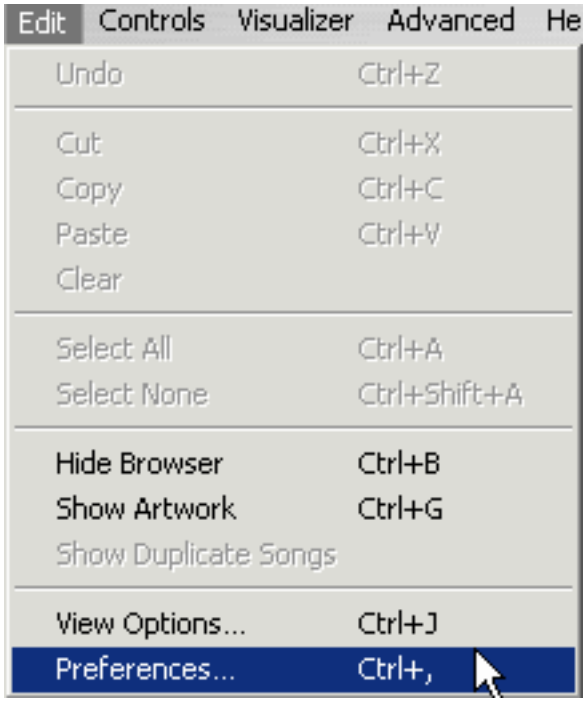
iTunes allows music files to reside on different volumes or hard drives, including network volumes. Since FireBall's CONTENT volume is really just another network volume to the PC OS, you can add your FireBall music to iTunes.

iTunes creates and maintains it's own Library index files which are separate from the actual music files that appear in it's browser window. This means that the ***iTunes Music Library*** file can remain on your hard drive (usually located in your Music folder) while the actual music files are located on some other volume, like the FireBall CONTENT volume.

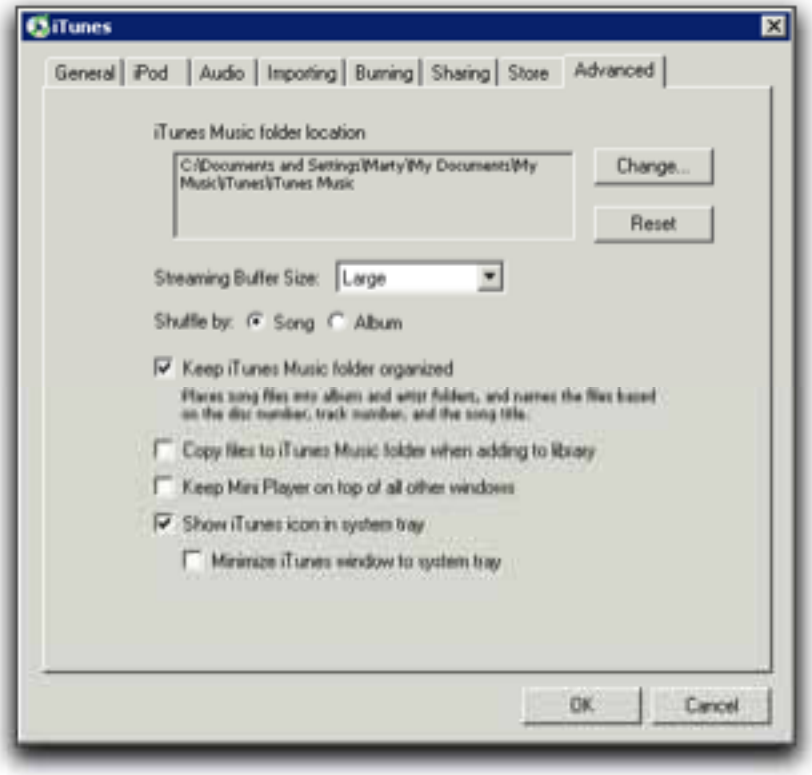
Note: Since iTunes does not currently support FLAC files, only MP3 files from FireBall can be used with iTunes.

Follow these steps to import your FireBall music content into iTunes:

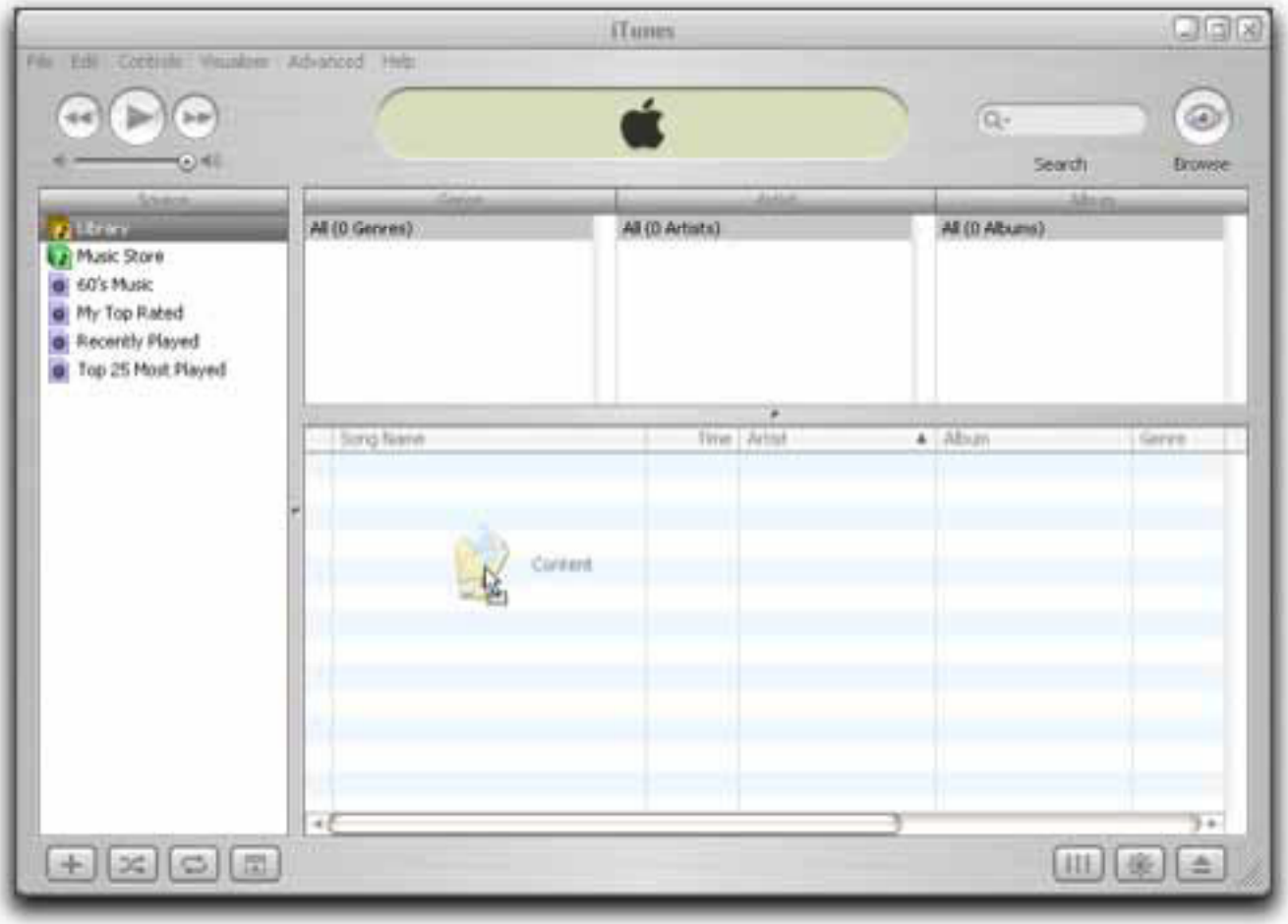
1. After mounting your FireBall's CONTENT volume (see above), open iTunes on your PC.
2. Select **Preferences…** from the iTunes menu



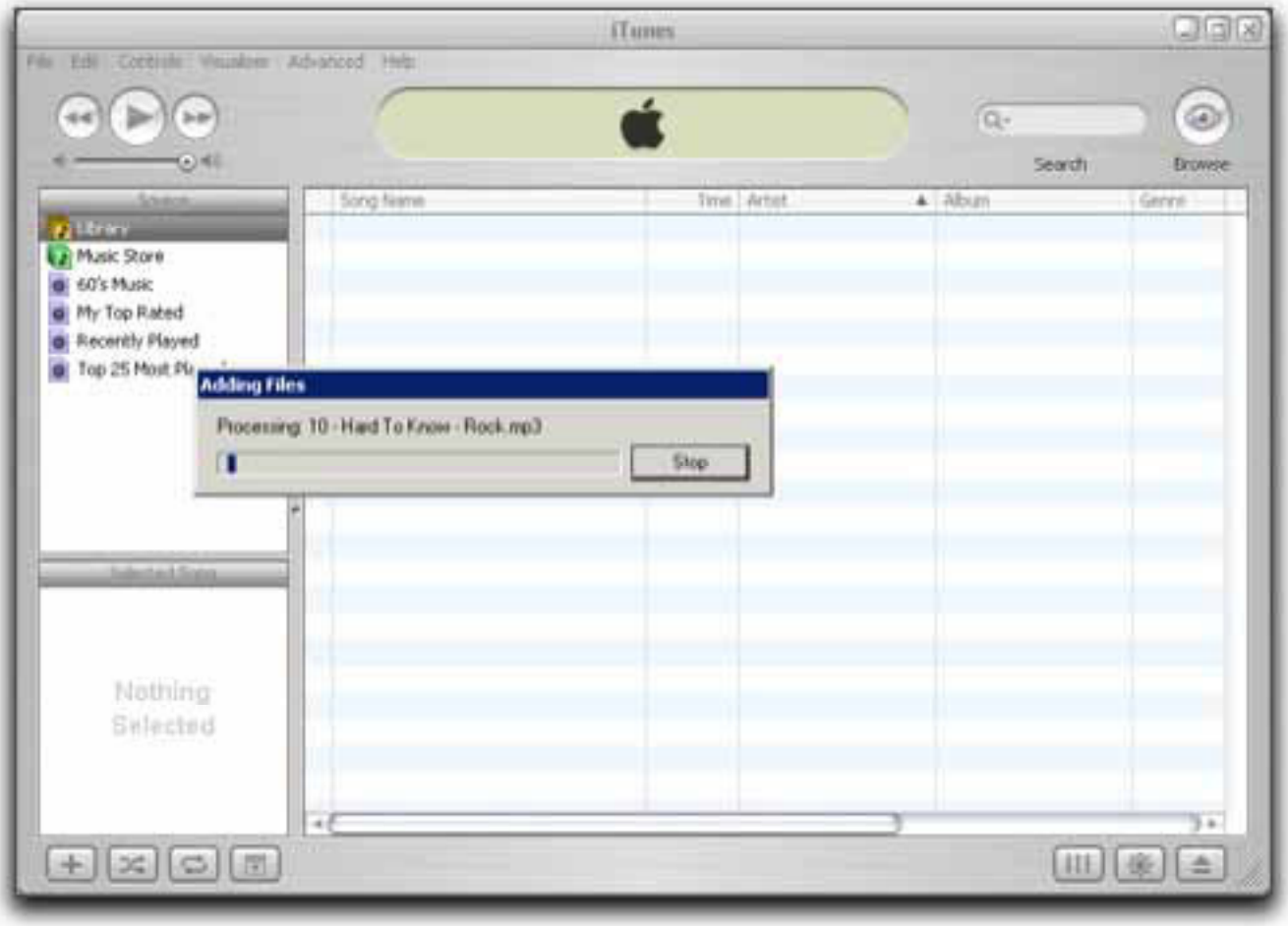
3. Click the Advanced icon in the toolbar to display the **Advanced** Preferences panel.
4. Make sure that **Copy files to iTunes Music folder when adding to library** is **NOT checked**. If it is checked, all music files imported into iTunes will be copied into your hard drive as they are imported. We don't want to do this, because we simply want to access the music from FireBall, not duplicate it on the PC.



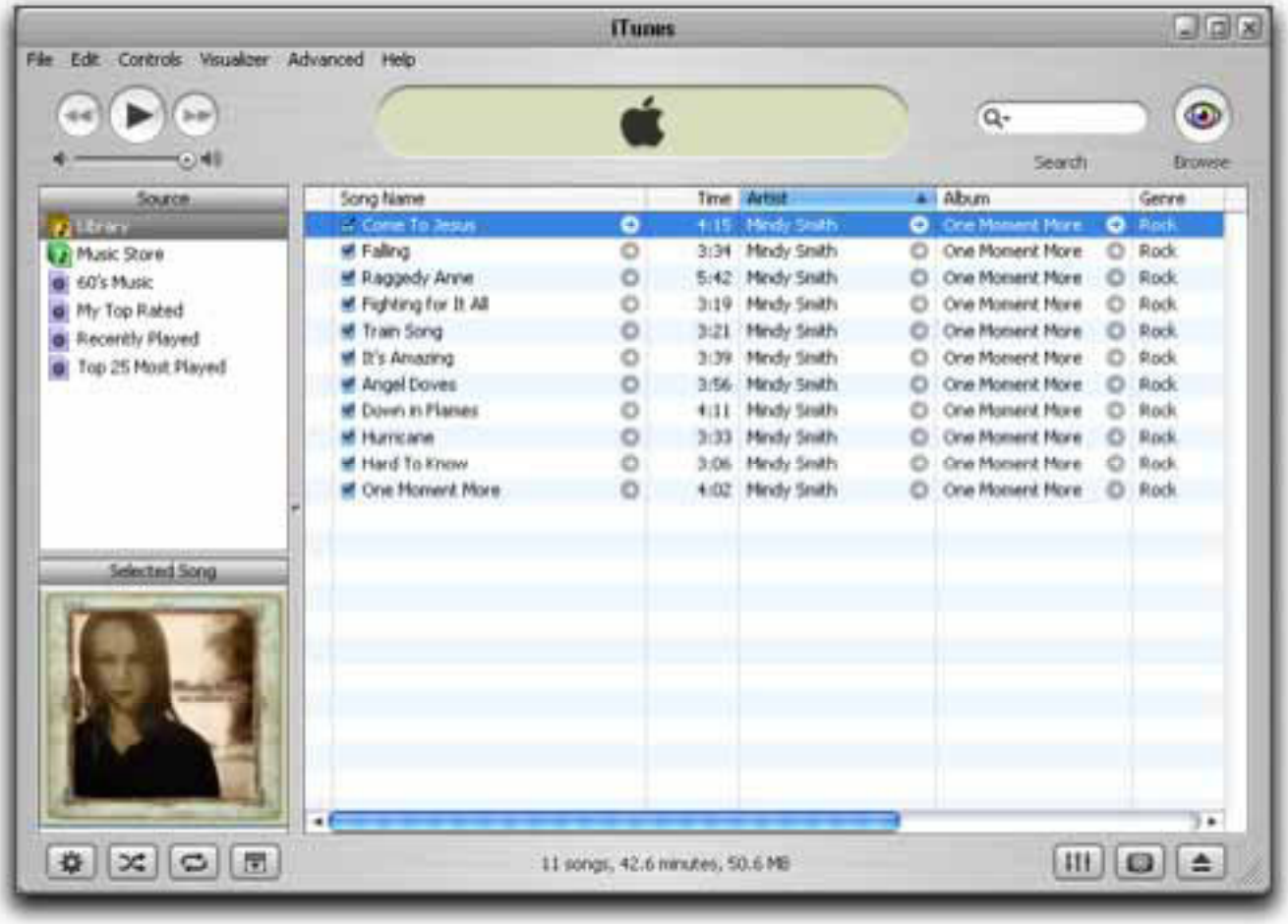
5. Drag and drop the CONTENT volume from your PC Desktop to the iTunes browser window.


iTunes
File Edit Controls Visualizer Advanced Help
Search
Browse
Source
Library
Music Store
60's Music
My Top Rated
Recently Played
Top 25 Most Played
Genre
Artist
Album
All (0 Genres)
All (0 Artists)
All (0 Albums)
Song Name
Time
Artist
Album
Genre
Content

6. Wait while iTunes scans the CONTENT volume for valid MP3 files and adds them to the iTunes Library.



7. When all your MP3 files have been imported, the iTunes browser window will display the music content from your FireBall, including cover art!


iTunes
File Edit Controls Visualizer Advanced Help
Search
Browse
Source
Library
Music Store
60's Music
My Top Rated
Recently Played
Top 25 Most Played
Selected Song
Song Name Time Artist Album Genre
Come To Jesus 4:15 Mindy Smith One Moment More Rock
Falling 3:34 Mindy Smith One Moment More Rock
Raggedy Anne 5:42 Mindy Smith One Moment More Rock
Fighting for It All 3:19 Mindy Smith One Moment More Rock
Train Song 3:21 Mindy Smith One Moment More Rock
It's Amazing 3:39 Mindy Smith One Moment More Rock
Angel Doves 3:56 Mindy Smith One Moment More Rock
Down in Flames 4:11 Mindy Smith One Moment More Rock
Hurricane 3:33 Mindy Smith One Moment More Rock
Hard To Know 3:06 Mindy Smith One Moment More Rock
One Moment More 4:02 Mindy Smith One Moment More Rock
11 songs, 42.6 minutes, 50.6 MB

You can now access your FireBall music from iTunes just as if it were located on your PC.

Creating iTunes Playlists

Now that your FireBall music has been added to the iTunes Library, you can create iTunes Playlists. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and play FireBall music.

Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Note: iTunes actually streams each MP3 from FireBall in real-time over your network. This may limit the number of simultaneous client streams that your FireBall server can play at once.

Burn CDs from iTunes

Again, since your FireBall music has been added to the iTunes Library, you can burn CDs directly from iTunes Playlists on your PC. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and burn CDs that contain music which is physically located on your FireBall music server.

In iTunes, you burn a CD from a Playlist. Create a Playlist in iTunes with the songs you want on your CD, then click the Burn icon in the upper right corner of the screen. Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Sync Playlists and Music to your iPod

Once again, since your FireBall music has been added to the iTunes Library, you can also sync iTunes Playlists to your iPod. Your iPod can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and sync MP3 music which is physically located on your FireBall music server.

Please refer to the iTunes Help screens for more detailed information about syncing music to an iPod using iTunes.

Note: Remember that iTunes does not support FLAC files, so only FireBall MP3 files can be synced to an iPod.

ID3 Tags and the PC

What is an ID3 Tag?

When MP3s became popular in late 1996, people started wondering if there would be a solution for the lack of information in audio tracks stored in MP3 format. Basically the problem was that even most advanced rippers who distributed audio tracks in MP3 format, included the information about album, track name, etc inside the filename. Since some people then renamed the files as something else that didn't provide the same quality of information anymore, ID3 was born.

An ID3 tag is a small piece of information stored physically inside the MP3 file (in the beginning or in the end of the file, depends on ID3's version). ID3 tags (as the pieces of information that ID3s contain are called) can contain various information about the MP3, like album name, song name, artist, original artist, genre, composer, releasing year, additional comment fields, cover art etc.. Nowadays ID3s are de facto in audio world and they can be added to most of the audio formats and even to certain video formats in order to provide additional information of the file. FireBall uses ID3 tags to store information about MP3 and FLAC files which are recorded or ripped into FireBall.

FireBall's ID3 tag Requirements

FireBall supports version1.0, 1.1, 2.2, and 2.3 ID3 tags. Before you can properly import music files into FireBall, you should first convert all of your MP3 and FLAC files to use ID3 version 2.2 or 2.3 tags. There are several programs available to do this including iTunes, however since iTunes does not support FLAC files you cannot use it for editing ID3 tags embedded into FLAC files.

Apple iTunes is a PC program that can edit ID3 tags embedded into MP3 files. Follow these steps to convert your MP3 files to use ID3v2.3 tags BEFORE importing them to your FireBall.

1. Select the **Library** in the iTunes Source list.
2. Type **Ctrl+A** to select all of the Songs in your Library.

3. Select **Convert ID3 Tags…** from the Advanced menu.

4. When the **Convert ID3 Tags** dialog is displayed, select **v2.3** from the drop down menu, then select OK.

5. The ID3 tags within all of the selected songs will be converted to v2.3 and thus compatible with the FireBall.

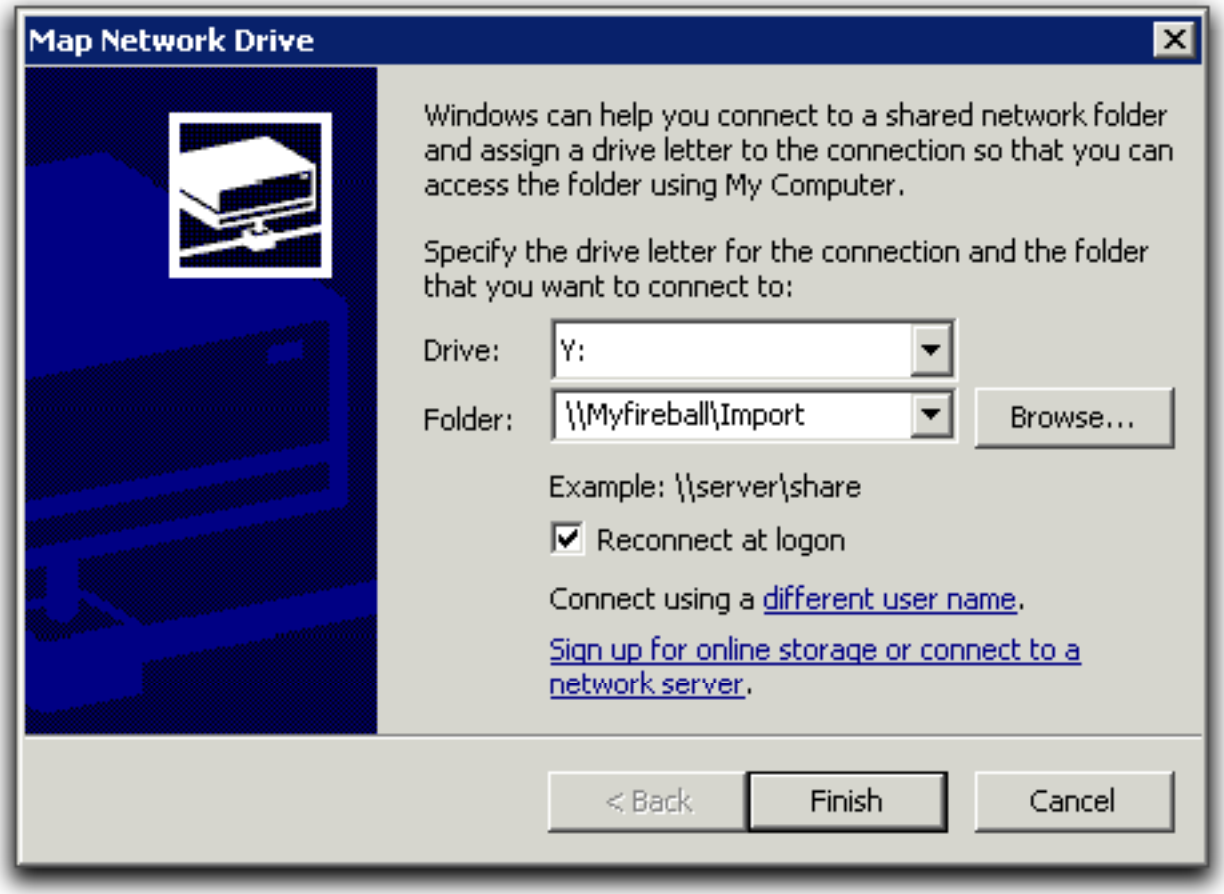
Note: Because the CONTENT volume is a read-only volume, you cannot edit anything. You must first copy any files you want to edit onto your PC and then import them back into your FireBall, replacing the originals. Please see the section ***Importing Music Into FireBall*** for instructions on how to get your music files into your FireBall using the IMPORT volume.

Importing Music Into FireBall

FireBall's **CONTENT** volume is read-only, which means you can't write to it or use it for importing music files from your PC to your FireBall. There is a way! FireBall actually provides two server volumes, one for reading your music collection and one for importing your music collection. The difference is that the **IMPORT** volume is a writeable volume while the CONTENT volume is read only.

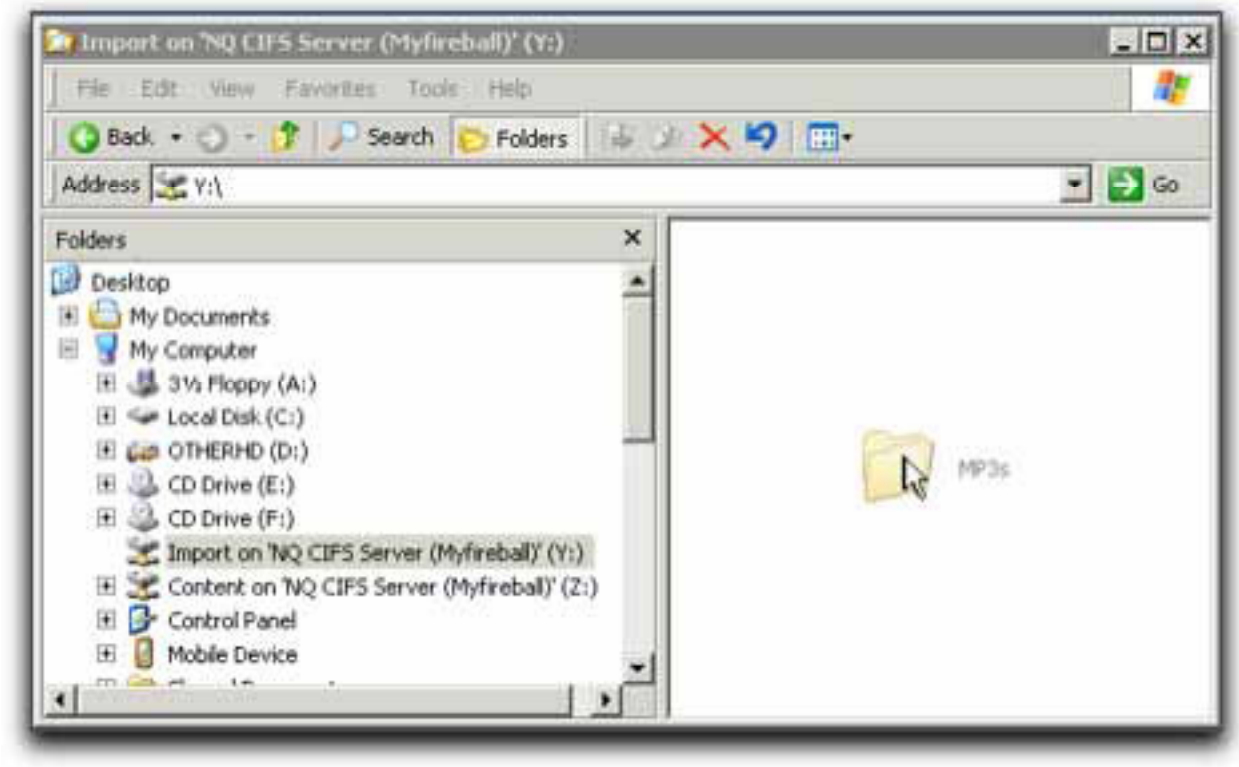
Mounting the IMPORT Volume

Mount your FireBall's **IMPORT** volume by right clicking on "My Computer" and selecting "Map Network Drive". Choose an available drive letter, then type in the name of your FireBall. Example: suppose you named your FireBall "MyFireBall" in the Server Settings screen, you would then enter **\\MyFireBall\Import** in the Folder name, and click Finish.

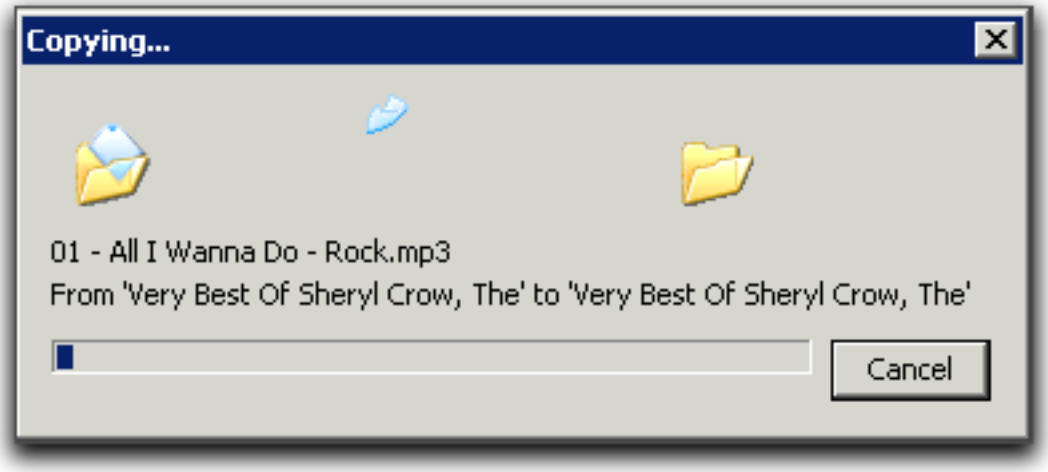

Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Y:
Folder:
\\Myfireball\Import
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

Importing your Music Files

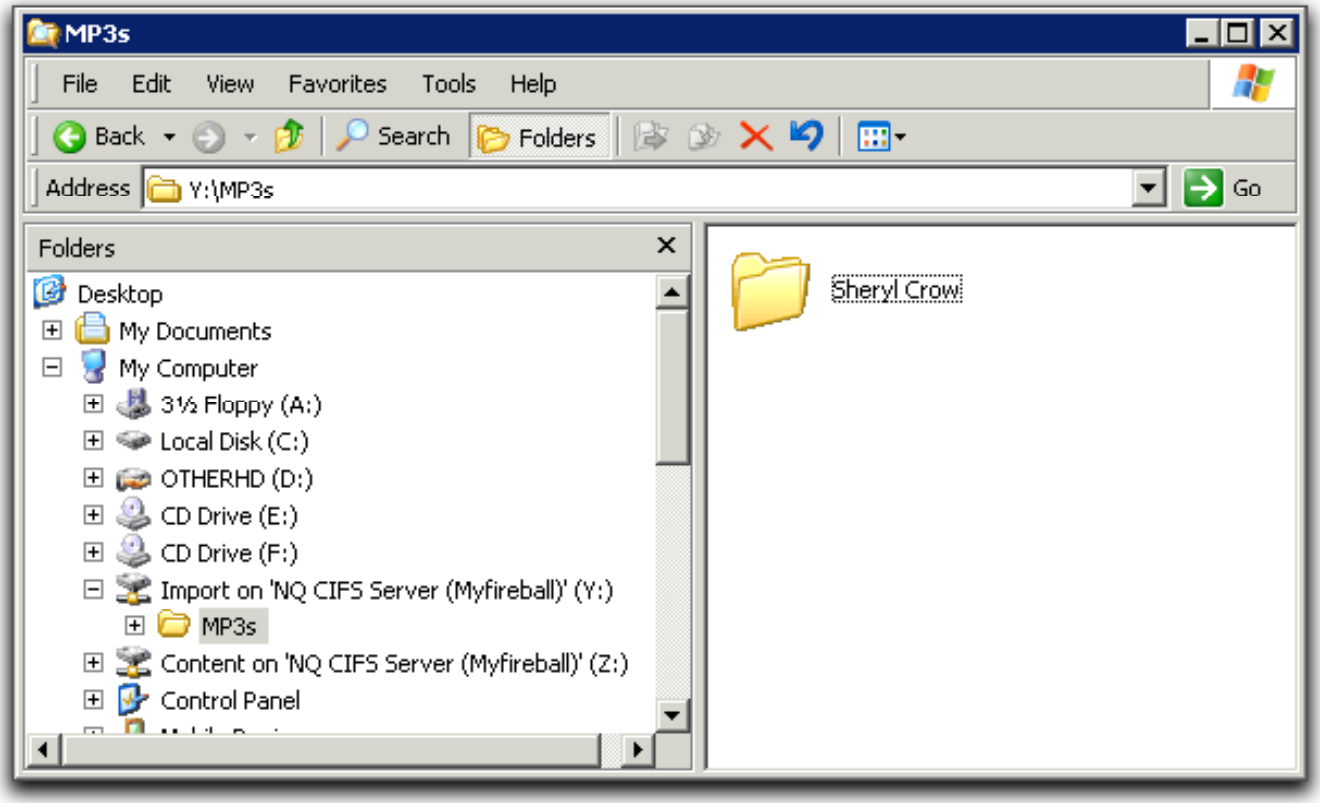
Once the IMPORT volume is mapped as a new drive, simply drag and drop any MP3 or FLAC audio file into the IMPORT volume and the files will be copied to FireBall and added to the FireBall Music Library. You can drag and drop whole collections, a folder of songs, or just a single song.



When the music files are copied to the FireBall, you will see the new songs appear on your FireBall's Music Guide, under the" artist – album name" as defined in the file's ID3 tag.



Note: The IMPORT directory may contain special “cache files” in it if you have previously imported music into your FireBall. These files are just temporary cache files that appear to be the original music files, however they are not. They are just temporary “stub” files that indicate what you previously imported into your FireBall. You can delete these files without actually deleting the originals which physically reside on the CONTENT volume.



The IMPORT volume displaying the temporary cache files for an imported artist folder

Controlling FireBall from Internet Explorer

The FireBall contains a built-in web server capable of serving web pages specifically designed to control almost every aspect of the FireBall from a standard web browser such as Microsoft's Internet Explorer.

Requirements

In order to control your FireBall from Internet Explorer, you will need to meet the following requirements:

- Your PC and FireBall must be on the same Ethernet network
- Windows XP Home or Pro Edition OS installed on your PC
- Internet Explorer (included with XP)

Connecting to Your FireBall

Before you can connect to your FireBall from Internet Explorer, you must obtain the "IP Address" of your FireBall. Follow these steps to determine the IP Address:

1. Press the SETUP key on the remote to display the Setup menu.
2. Select the Utilities menu item.
3. Select the System Information menu item.
4. Write down the IP Address of your FireBall's Ethernet connection. This number is located in the bottom right of the System Information screen and consists of four numbers separated by periods. Example: 192.168.1.1
5. Press the SETUP key again to exit Setup

On your PC, open Internet Explorer and enter the IP address of your FireBall into the Address Bar and press the Return key on your keyboard. You should now see the familiar FireBall user interface on your PC.

Controlling Your FireBall

The FireBall Web Client Interface is the graphics and control system web pages that appear in your Internet Explorer browser. From this web page, you can control almost every aspect of your FireBall, just as you would from the original IR remote and TV.

You will notice that unlike the TV user interface, there are buttons along the left and right edges of the web browser. These buttons duplicate the features found on your remote control.

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PRODUCTS FOR THE HUMAN INTERFACE.

Mac OS X Integration

A Guide to Using FireBall with Mac OS X Panther

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

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FireBall to Mac Networking Basics

Overview

With the new Network File Sharing feature built into FireBall, you can now access your FireBall from your Mac using your home network. Having access to your FireBall allows you to do things like backup your music files, import music files from your Mac to your FireBall, remotely control your FireBall from your Mac, and share your FireBall based music with iTunes and the Apple iPod. This document will explain how to do all of these things using your Mac and your FireBall over your home network.

Requirements

In order to connect to your FireBall, you will need to have your FireBall and Mac on the same network. This document assumes that you already have a home network correctly setup and configured. If you need help setting up your network, please review the “Home Network Primer” available on the Escient web site, or contact your Escient dealer.

The following items are required for connecting your Mac to your FireBall:

- Properly configured Ethernet home network
- Fireball E2 Music Manager or DVDM Media Manager with and internal hard drive and File Sharing Support
- Mac OS X computer with 64MB of ram and Mac OS X 10.3.5 or later (Panther)
- iTunes 4.5 or later

Connecting to Your FireBall

FireBall uses a type of file server commonly called “Windows Networking” or “CIFS/SMB”. CIFS/SMB networking is found in most Microsoft operating systems and allows PCs to connect and then share files over a network. Mac OS X has a built-in Windows Networking client for CIFS/SMB and thus allows the Mac to connect to any CIFS/SMB server on the local network.

Setting up the FireBall Server

Before you can connect to your FireBall you must configure FireBall’s server settings. Follow these steps to configure your FireBall server:

1. Using your FireBall remote, press **SETUP** to display the Setup Menu.
2. Select the **NETWORK** menu item.
3. Select the **SERVER SETTINGS** menu item to display the Server Settings screen.
4. Enter a name for your FireBall using the remote or keyboard. Do not use spaces in the name.
5. Select the **SAVE** button to save your settings.
6. Press **SETUP** again to exit the Setup menus.

SERVER SETTINGS
Enter a name for your FireBall server. This is the name you will see when seleting a server from FireBall-MP players, wireless web pads and web browsers.
FireBall name:
MyFireBall
Enter a password to limit access to FireBall's built-in web server or leave it blank if you do not want to use a password. There is no 'user name' when connecting to a FireBall server using a web browser.
Web Password:
help
cancel
save

Server Settings screen

Connecting to the FireBall Server

Once you have setup the FireBall server, you can now connect to it from your Mac. Follow these steps to connect to your FireBall from your Mac OS X computer:

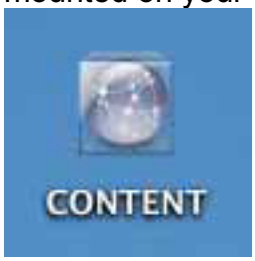
1. Go to the Finder and select **Connect to Server…** from the Go Menu.

2. Enter “smb://” (without the quotes) and the name of your FireBall server into the Server Address field in the Connect to Server dialog. Example: smb://MyFireBall

3. Select the **Connect** button and wait for the Mac to locate your FireBall on the Network. When your FireBall is located, the SMB Mount dialog will appear.

4. Select **OK** to select the default volume called “Content”.
5. Depending on your network configuration, the SMB/CIFS Filesystem Authentication dialog might be displayed. If it is, just click the **OK** button. There are no usernames or passwords to enter for connecting to your FireBall server.

6. The Content volume, which contains all of your FireBall's music content, will be mounted on your Mac's Desktop.



The Content volume is mounted as a Read-Only volume in order to minimize the chances of accidentally deleting music from your FireBall.

Backing Up Your FireBall

Once you have successfully mounted your FireBall's Content volume on your Mac, you now have access to the music content contain on the FireBall's internal hard drive. Having this access affords you the opportunity to backup your FireBall's music collection. There are many ways to backup the music files including copying files to another drive mounted on your Mac or using third party backup software to perform automated backups each night.

Note: Playlists, Internet Radio Stations, and System Settings are not backed up. Only the actual music files are available for backup within the Content volume mounted on your Mac Desktop.

One Time Backup

If you are only going to make a one time backup of the FireBall for safe keeping, it is recommended to do a simple drag and drop of the Content volume to another volume mounted on your Mac. This one time backup method is useful if your FireBall music collection is not going to change much from day to day and you simply want to preserve a copy as a failsafe to some catastrophic event such as theft, loss by fire, or hard drive crash. This is typically done by an installer or dealer who wants to keep an offsite copy of the installed FireBall for safety reasons.

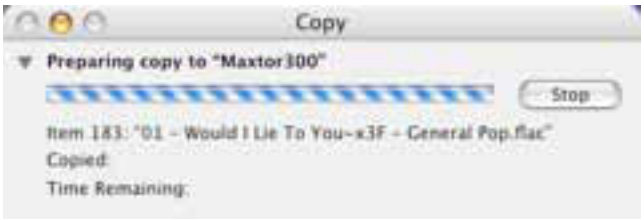
Escient recommends that a 300 GB external FireWire drive be used for each full FireBall backup and stored in a different physical location from the FireBall to reduce the possibility of loosing both the FireBall and the Backup Drive in a single catastrophic event. FireWire hard drives from Maxtor and LaCie are readily available in 300GB sizes.

Follow these steps to backup all music files from your FireBall to an external hard drive connected to your Mac.

1. **Connect an external hard drive** which is equal or greater 300 GB to your Mac.
2. From the Finder, **double-click the CONTENT volume** to display it's contents.
3. Choose **Select All** from the edit menu to select all of the files and folders in the CONTENT volume.

4. While all the items on the Content volume are highlighted**,** click and **drag from the CONTENT volume to the Backup drive**.

5. All of the items in the current selection will now be copied to the backup drive. Depending on the size of your music collection, this may take a while to complete. It will take approximately 3 days to backup an entire 300 GB drive over an Ethernet connection.



Automated Backups

If you are going to add new music or edit the contents of your FireBall frequently, it is recommended to setup an automated backup system. This type of backup requires the use of a third party backup software application and a computer that can access your FireBall over the network. Each night the contents of your FireBall which have been added, deleted, or edited will be copied to the backup folder on your computer. The backup software manages which files have changed compared to what is in the backup folder and copies only those files which have changed, keeping the FireBall's CONTENT volume in sync with a duplicate volume.

Escient offers the "**FireBall Backup Kit**" (FBK-1) to help make FireBall backup easy. The kit is comprised of an external hard drive that connects to your Mac (or PC along with Retrospect backup software. The FBK-1 is available from your Escient dealer.

Using the FireBall Backup Kit to Backup your FireBall Every Night

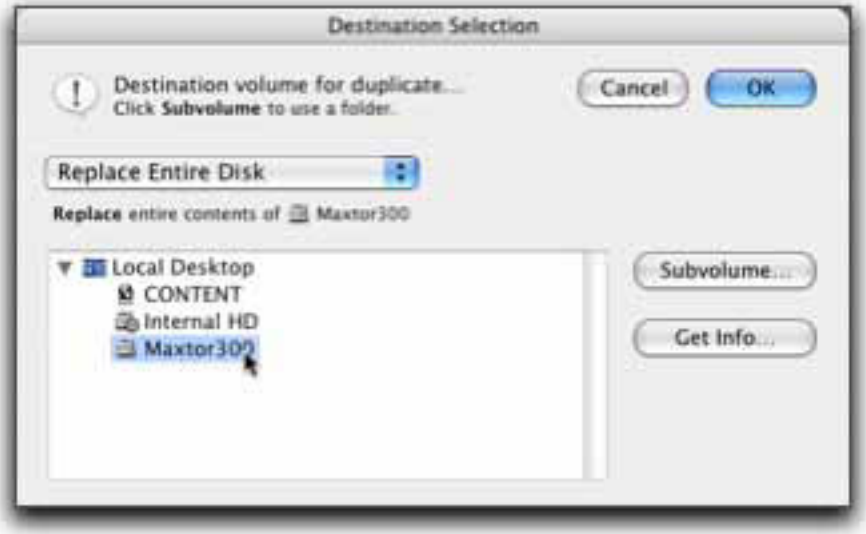
1. **Install** the **Retrospect Express** backup software from the CD-Rom disc included with the 300 GB Maxtor FireWire drive.
2. **Connect** the Maxtor **drive** to your Mac using the included FireWire cable. The Maxtor drive should appear on your Mac desktop.
3. **Mount** your FireBall's **CONTENT** volume (see above for instructions)
4. Launch Retrospect Express

5. Select **Immediate** at the top of the Retrospect window.
6. Select the **Duplicate** button.

Retrospect Express Directory
Immediate
Automate
Tools
Configure
Back up, restore, or duplicate files now
Backup
Back up files, folders, or volumes to a backup set of media
Restore
Restore a backup set's files, folders, or volumes to a disk or folder
Duplicate
Copy one folder or volume to another
Archive
Move files to a backup set, deleting the originals

7. Select **CONTENT** as the Source volume, then the **OK** button

8. Select the **external Maxtor FireWire hard drive** as the Destination and make sure that "Replace Entire Disk" is selected. Select the **OK** button



9. The following dialog is displayed.

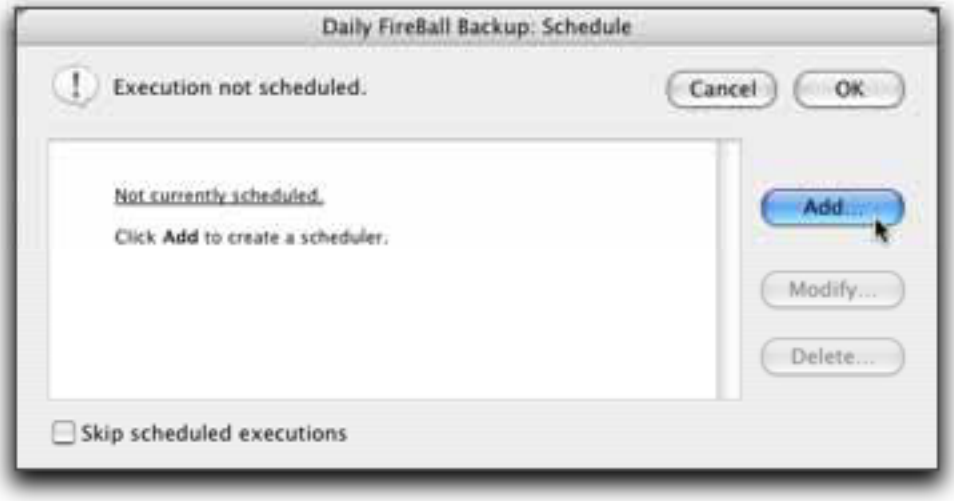
Note: If you want to turn off Verification, select Options and turn it off. Verification will verify that all files were backed up correctly, but will increase the overall backup time.

10. You can run the backup immediately by selecting the Duplicate button, or to schedule the backup to run every day, select **Schedule** from the Script menu.

11. Name the new Schedule "**Daily FireBall Backup**" and select the New button.

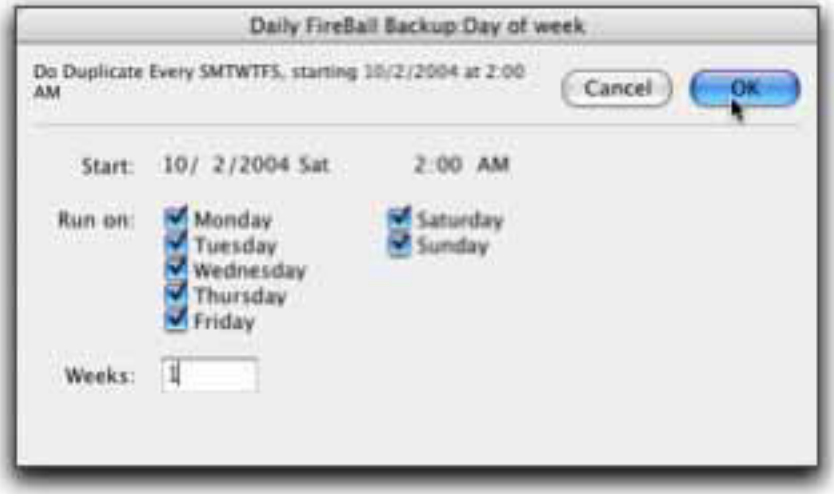
12. When the following dialog is displayed, select the **Schedule** button.

13. Select **Add** button to add a new schedule.

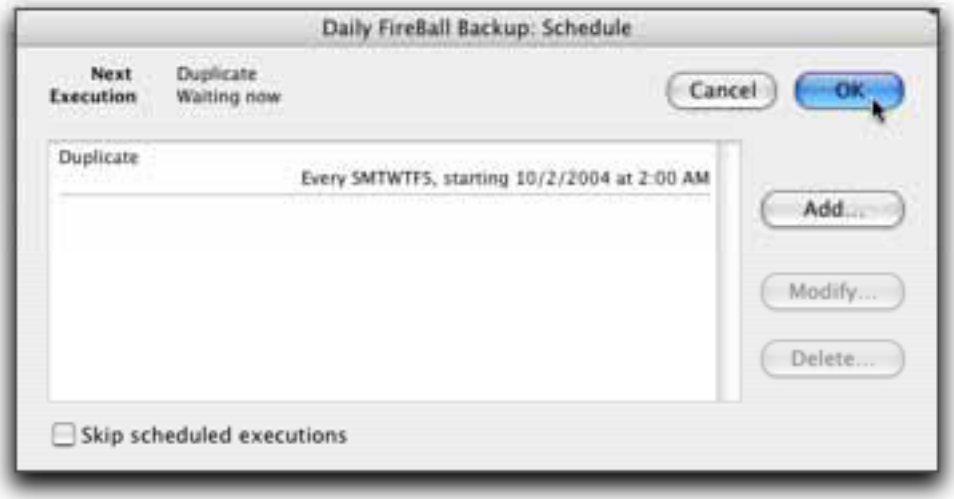


14. When the following dialog is displayed, select "**Day of the week**" then the **OK** button

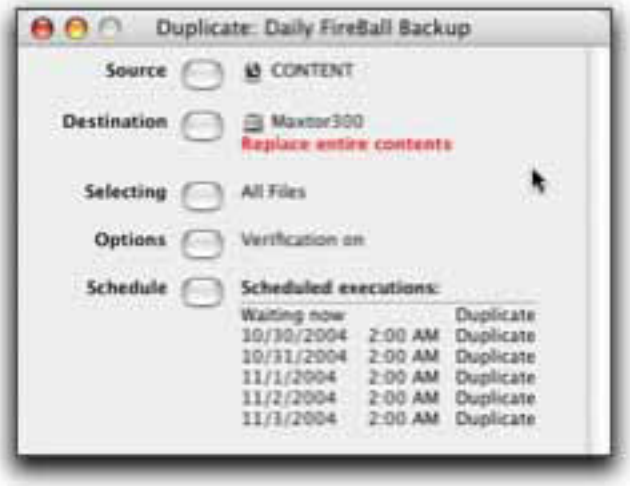
15. Select the start date (usually today), the start time (usually overnight when you are sleeping) and on which days to run the backup (usually every day). Select 1 week to have the schedule run every week. Select **OK** when you are done.



16. You should see the following dialog with your scheduled options. If this is correct, select the **OK** button.



17. You should now have a Duplicate dialog screen that looks like this, with a series of scheduled execution dates listed next to “Schedule”.



18. Close all windows and Save if asked to do so. To verify that the Schedule is set, select Automate and Scripts from the Main Retrospect Express screen.

You should see one script listed called “Daily FireBall Backup (Duplicate)”. You backup is now scheduled to run.

IMPORTANT!!!
Remember that your Mac must be on and your CONTENT directory must be mounted on your Mac Desktop in order for Retrospect to run automatically. Retrospect will launch automatically, you do not have to keep it running. For more detailed information on Retrospect Express, read the full documentation included on the Maxtor CD-Rom or visit the Retrospect web site at http://www.dantz.com.

Integrating with iTunes and iPod

FireBall supports iTunes and iPod integration through the FireBall Network File Sharing feature described above. Once your Mac is connected to your FireBall over the network, you can access FireBall's music and use it from iTunes and sync it with your iPod.

Please read the section ***Connecting to your FireBall*** before proceeding to make sure that you can mount FireBall's CONTENT volume on your Mac Desktop.

What You Can Do

Once FireBall's is mounted on your Mac Desktop, you can:

- Import FireBall MP3 music into iTunes
- Create iTunes Playlists
- Burn CDs using iTunes
- Sync Playlists and Music to your Apple iPod

What You Can't Do

Here are some things you **can't** do with iTunes:

- Copy Music from an iPod to FireBall
- Copy iTunes Playlists to your FireBall
- Import FLAC files

Importing Music Into iTunes

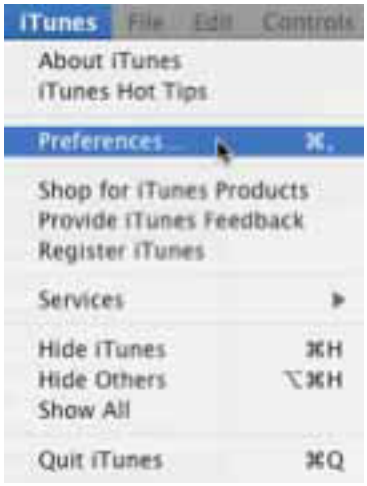
iTunes allows music files to reside on different volumes or hard drives, including network volumes. Since FireBall's CONTENT volume is really just another network volume to the Mac OS, you can add your FireBall music to iTunes.

iTunes creates and maintains it's own Library index files which are separate from the actual music files that appear in it's browser window. This means that the ***iTunes Music Library*** file can remain on your hard drive (usually located in your Music folder) while the actual music files are located on some other volume, like the FireBall CONTENT volume.

Note: Since iTunes does not currently support FLAC files, only MP3 files from FireBall can be used with iTunes.

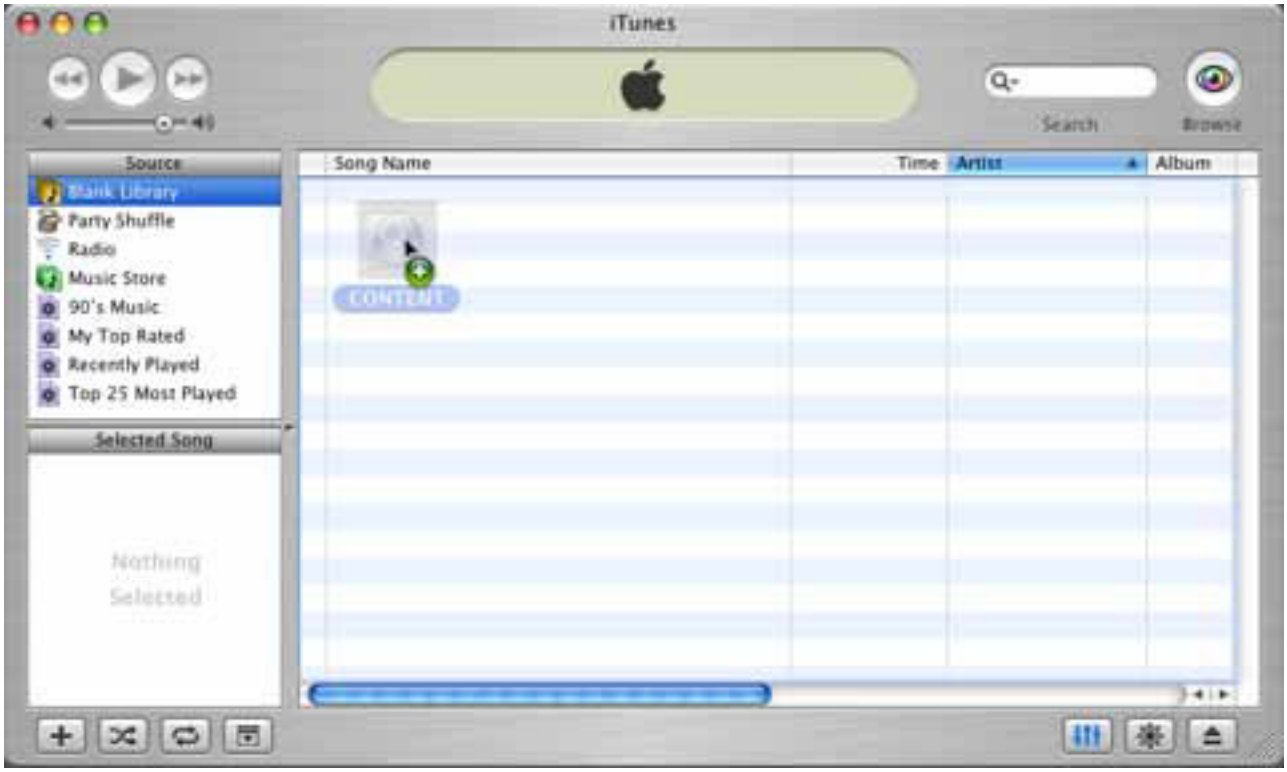
Follow these steps to import your FireBall music content into iTunes:

1. After mounting your FireBall's CONTENT volume (see above), open iTunes on your Mac.
2. Select **Preferences…** from the iTunes menu



3. Click the Advanced icon in the toolbar to display the **Advanced** Preferences panel.
4. Make sure that **Copy files to iTunes Music folder when adding to library** is **NOT checked**. If it is checked, all music files imported into iTunes will be copied into your hard drive as they are imported. We don't want to do this, because we simply want to access the music from FireBall, not duplicate it on the Mac.

5. Drag and drop the CONTENT volume from your Mac Desktop to the iTunes browser window.



6. Wait while iTunes scans the CONTENT volume for valid MP3 files and adds them to the iTunes Library.

7. When all your MP3 files have been imported, the iTunes browser window will display the music content from your FireBall, including cover art!

iTunes
Search
Browse
Source
Blank Library
Party Shuffle
Radio
Music Store
90's Music
My Top Rated
Recently Played
Top 25 Most Played
Selected Song
Song Name
Time
Artist
Album
I Need To Be In Love 3:50 Carpenters, The Love Son
So This is Christmas 3:35 John Lennon The John
Come To Jesus 4:15 Mindy Smith One Mom
Falling 3:14 Mindy Smith One Mom
Raggedy Anne 5:42 Mindy Smith One Mom
Fighting for It All 3:19 Mindy Smith One Mom
Train Song 3:21 Mindy Smith One Mom
It's Amazing 3:39 Mindy Smith One Mom
Angel Doves 3:56 Mindy Smith One Mom
Down in Flames 4:11 Mindy Smith One Mom
Hurricane 3:33 Mindy Smith One Mom
Hard To Know 3:06 Mindy Smith One Mom
One Moment More 4:02 Mindy Smith One Mom
All I Wanna Do 4:33 Sheryl Crow Very Best
Soak Up The Sun 4:52 Sheryl Crow Very Best
My Favorite Mistake 4:06 Sheryl Crow Very Best
First Cut Is The Deepest 3:47 Sheryl Crow Very Best
Everyday Is A Winding Road 4:17 Sheryl Crow Very Best
42 songs, 3.4 hours, 236.9 MB

You can now access your FireBall music from iTunes just as if it were located on your Mac.

Creating iTunes Playlists

Now that your FireBall music has been added to the iTunes Library, you can create iTunes Playlists. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and play FireBall music.

Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Note: iTunes actually streams each MP3 from FireBall in real-time over your network. This may limit the number of simultaneous client streams that your FireBall server can play at once.

Burn CDs from iTunes

Again, since your FireBall music has been added to the iTunes Library, you can burn CDs directly from iTunes Playlists on your Mac. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to

remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and burn CDs that contain music which is physically located on your FireBall music server.

In iTunes, you burn a CD from a Playlist. Create a Playlist in iTunes with the songs you want on your CD, then click the Burn icon in the upper right corner of the screen. Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Sync Playlists and Music to your iPod

Once again, since your FireBall music has been added to the iTunes Library, you can also sync iTunes Playlists to your iPod. Your iPod can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and sync MP3 music which is physically located on your FireBall music server.

Please refer to the iTunes Help screens for more detailed information about syncing music to an iPod using iTunes.

Note: Remember that iTunes does not support FLAC files, so only FireBall MP3 files can be synced to an iPod.

ID3 Tags and the Mac

What is an ID3 Tag?

When MP3s became popular in late 1996, people started wondering if there would be a solution for the lack of information in audio tracks stored in MP3 format. Basically the problem was that even most advanced rippers who distributed audio tracks in MP3 format, included the information about album, track name, etc inside the filename. Since some people then renamed the files as something else that didn't provide the same quality of information anymore, ID3 was born.

An ID3 tag is a small piece of information stored physically inside the MP3 file (in the beginning or in the end of the file, depends on ID3's version). ID3 tags (as the pieces of information that ID3s contain are called) can contain various information about the MP3, like album name, song name, artist, original artist, genre, composer, releasing year, additional comment fields, cover art etc.. Nowadays ID3s are de facto in audio world and they can be added to most of the audio formats and even to certain video formats in order to provide additional information of the file. FireBall uses ID3 tags to store information about MP3 and FLAC files which are recorded or ripped into FireBall.

FireBall's ID3 tag Requirements

FireBall supports version1.0, 1.1, 2.2, and 2.3 ID3 tags. Before you can properly import music files into FireBall, you should first convert all of your MP3 and FLAC files to use ID3 version 2.2 or 2.3 tags. There are several programs available to do this including iTunes, however since iTunes does not support FLAC files you cannot use it for editing ID3 tags embedded into FLAC files.

Media Rage is a Mac OSX program that can edit ID3 tags embedded into MP3 and FLAC files. Escient recommends that you use this software for editing ID3 tags in your FLAC files. Please visit the Chaotic Software web site to download a trial copy of this great software.

http://www.chaoticsoftware.com/ProductPages/MediaRage.html

Media Rage ID3 Editor

Note: Because the CONTENT volume is a read-only volume, you cannot edit anything. You must first copy any files you want to edit onto your Mac and then import them back into your FireBall, replacing the originals. Please see the section ***Importing Music Into FireBall*** for instructions on how to get your music files into your FireBall using the IMPORT volume.

Importing Music Into FireBall

FireBall's CONTENT volume is read-only, which means you can't write to it or use it for importing music files from your Mac to your FireBall. There is a way! FireBall actually provides two server volumes, one for reading your music collection and one for importing your music collection. The difference is that the IMPORT volume is a writeable volume while the CONTENT volume is read only.

Connecting to the FireBall Server

Follow these steps to connect to your FireBall from your Mac OS X computer:

1. Go to the Finder and select **Connect to Server…** from the Go Menu.

2. Enter "smb://" (without the quotes) and the name of your FireBall server into the Server Address field in the Connect to Server dialog. Example: smb://MyFireBall

3. Select the **Connect** button and wait for the Mac to locate your FireBall on the Network. When your FireBall is located, the SMB Mount dialog will appear.

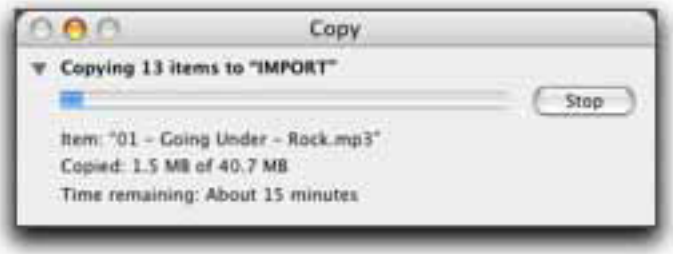
4. Select **IMPORT** from the share popup menu and click OK.
5. Depending on your network configuration, the SMB/CIFS Filesystem Authentication dialog might be displayed. If it is, just click the **OK** button. There are no usernames or passwords to enter for connecting to your FireBall server.

6. The IMPORT volume will be mounted on your Mac's Desktop.

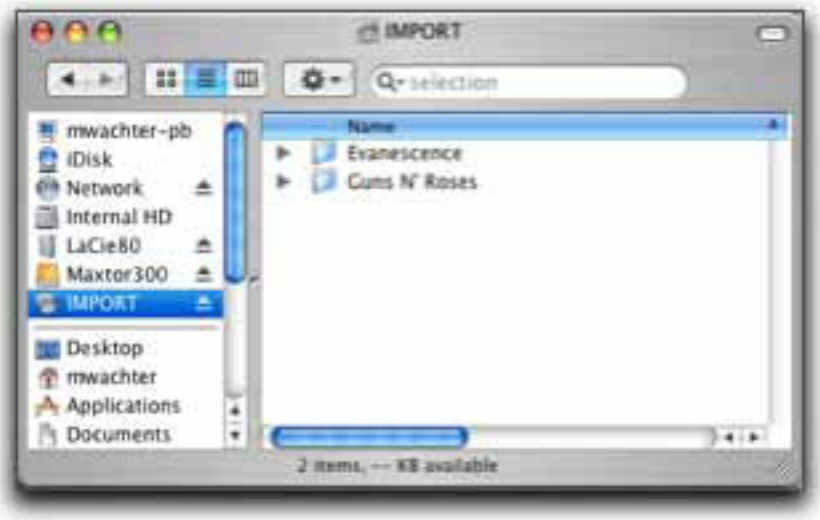
Importing your Music Files

Once the IMPORT volume is mounted on your Mac's desktop, simply drag and drop any MP3 or FLAC audio file into the IMPORT volume and the files will be copied to FireBall and added to the FireBall Music Library. You can drag and drop whole collections, a folder of songs, or just a single song.

When the music files are copied to the FireBall, you will see the new songs appear on your FireBall's Music Guide, under the" artist – album name" as defined in the file's ID3 tag.



Note: The IMPORT directory may contain special "cache files" in it if you have previously imported music into your FireBall. These files are just temporary cache files that appear to be the original music files, however they are not. They are just temporary "stub" files that indicate what you previously imported into your FireBall. You can delete these files without actually deleting the originals which physically reside on the CONTENT volume.



The IMPORT volume displaying the temporary cache files for an imported artist folder

Controlling FireBall from Safari

The FireBall contains a built-in web server capable of serving web pages specifically designed to control almost every aspect of the FireBall from a standard web browser, including Apple's Safari browser. Safari is the default browser included in Mac OS X 10.3. Microsoft's Internet Explorer 5.2.3 is also included with Mac OS X, but is not officially supported.

Requirements

In order to control your FireBall from Safari, you will need to meet the following requirements:

- Your Mac and FireBall must be on the same Ethernet network
- Mac OS X 10.3 or later
- Safari version 1.2.3 or later

Connecting to Your FireBall

Before you can connect to your FireBall from Safari, you must obtain the "IP Address" of your FireBall. Follow these steps to determine the IP Address:

1. Press the SETUP key on the remote to display the Setup menu.
2. Select the Utilities menu item.
3. Select the System Information menu item.
4. Write down the IP Address of your FireBall's Ethernet connection. This number is located in the bottom right of the System Information screen and consists of four numbers separated by periods. Example: 192.168.1.1
5. Press the SETUP key again to exit Setup

On your Mac, open Safari and enter the IP address of your FireBall into the Address Bar and press the Return key on your keyboard. You should now see the familiar FireBall user interface on your Mac.

Controlling Your FireBall

The FireBall Web Client Interface is the graphics and control system web pages that appear in your Safari browser. From this web pages, you can control almost every aspect of your FireBall, just as you would from the original IR remote and TV.

You will notice that unlike the TV user interface, there are buttons along the left and right edges of the web browser. These buttons duplicate the features found on your remote control.

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FireBall to PC Networking Basics

Overview

With the new Network File Sharing feature built into FireBall, you can now access your FireBall from your PC using your home network. Having access to your FireBall allows you to do things like backup your music files, import music files from your Mac to your FireBall, remotely control your FireBall from your Mac, and share your FireBall based music with iTunes and the Apple iPod. This document will explain how to do all of these things using your PC and your FireBall over your home network.

Requirements

In order to connect to your FireBall, you will need to have your FireBall and PC on the same network. This document assumes that you already have a home network correctly setup and configured. If you need help setting up your network, please review the *"Home Network Primer*" available on the Escient web site, or contact your Escient dealer.

The following items are required for connecting your PC to your FireBall:

- Properly configured Ethernet home network
- Fireball E2 Music Manager, DVDM-300, or FireBall E upgraded to E2 software
- PC computer with 64MB of RAM and Windows XP Installed
- iTunes 4.5 or later

Connecting to Your FireBall

FireBall uses a type of file server commonly called “Windows Networking” or “CIFS/SMB”. CIFS/SMB networking is found in most Microsoft operating systems and allows PCs to connect and share files over a network.

Setting up the FireBall Server

Before you can connect to your FireBall you must configure FireBall’s server settings. Follow these steps to configure your FireBall server:

1. Using your FireBall remote, press **SETUP** to display the Setup Menu.
2. Select the **NETWORK** menu item.
3. Select the **SERVER SETTINGS** menu item to display the Server Settings screen.
4. Enter a name for your FireBall using the remote or keyboard. Do not use spaces in the name.
5. Select the **SAVE** button to save your settings.
6. Press **SETUP** again to exit the Setup menus.

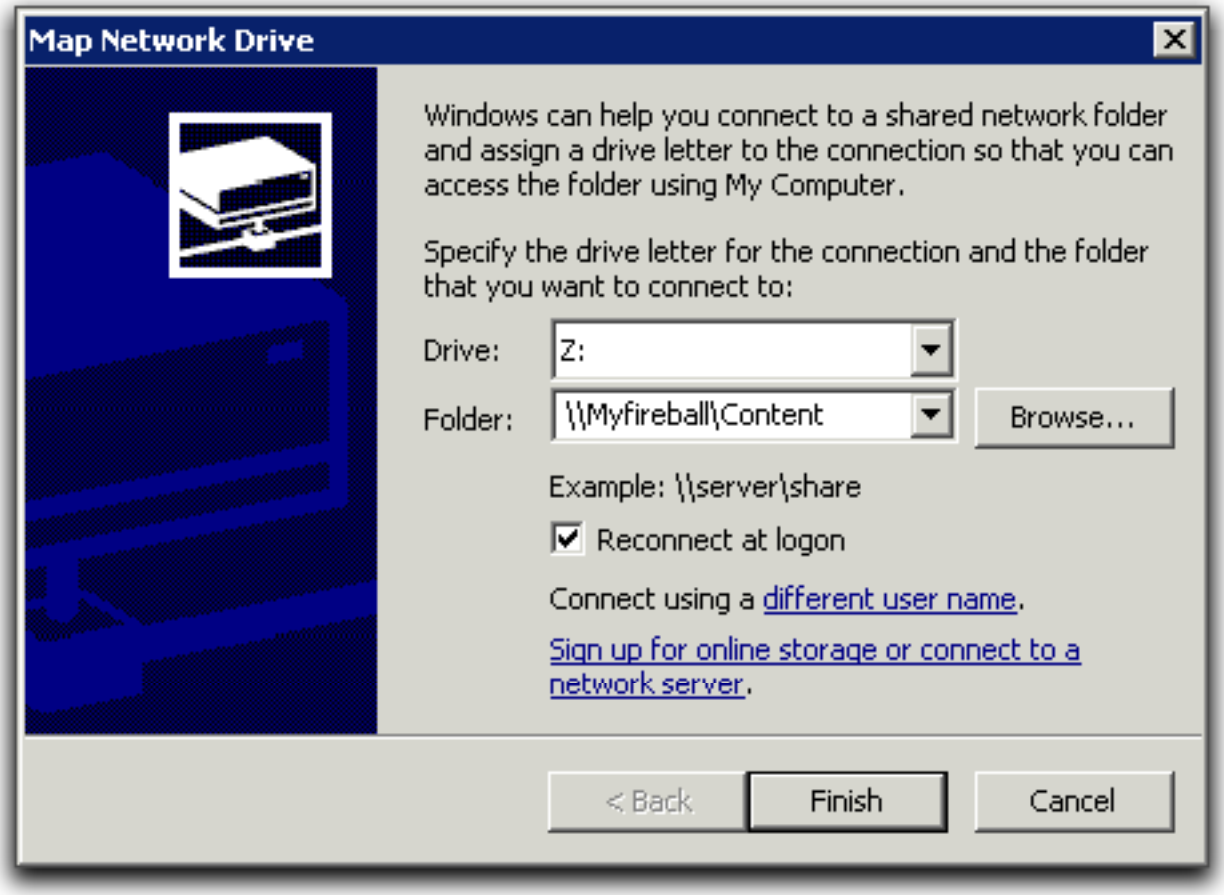
SERVER SETTINGS
Enter a name for your FireBall server. This is the name you will see when seleting a server from FireBall-MP players, wireless web pads and web browsers.
FireBall name:
MyFireBall
Enter a password to limit access to FireBall's built-in web server or leave it blank if you do not want to use a password. There is no 'user name' when connecting to a FireBall server using a web browser.
Web Password:
help
cancel
save

Server Settings screen

Mount Your FireBall on your PC

To mount your FireBall's **CONTENT** volume which contains all of your music files, right click on "My Computer" and select "Map Network Drive" from your PC. Choose an available drive letter, then type in the name of your FireBall.

Example: suppose you named your FireBall "MyFireBall" in the Server Settings screen, you would then enter **\\MyFireBall\Content** in the Folder name, and click Finish.


Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Z:
Folder:
\\Myfireball\Content
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

Your FireBall's CONTENT volume will now be accessible to any application on your PC and will appear as another mounted volume in the Windows Explorer.

Integrating with iTunes and iPod

FireBall supports iTunes and iPod integration through the FireBall Network File Sharing feature described above. Once your PC is connected to your FireBall over the network, you can access FireBall's music and use it from iTunes and sync it with your iPod.

Please read the section ***Connecting to your FireBall*** before proceeding to make sure that you can mount FireBall's CONTENT volume on your PC Desktop.

What You Can Do

Once FireBall's is mounted on your PC Desktop, you can:

- Import FireBall MP3 music into iTunes
- Create iTunes Playlists
- Burn CDs using iTunes
- Sync Playlists and Music to your Apple iPod

What You Can't Do

Here are some things you **can't** do with iTunes:

- Copy Music from an iPod to FireBall
- Copy iTunes Playlists to your FireBall
- Import FLAC files

Importing Music Into iTunes

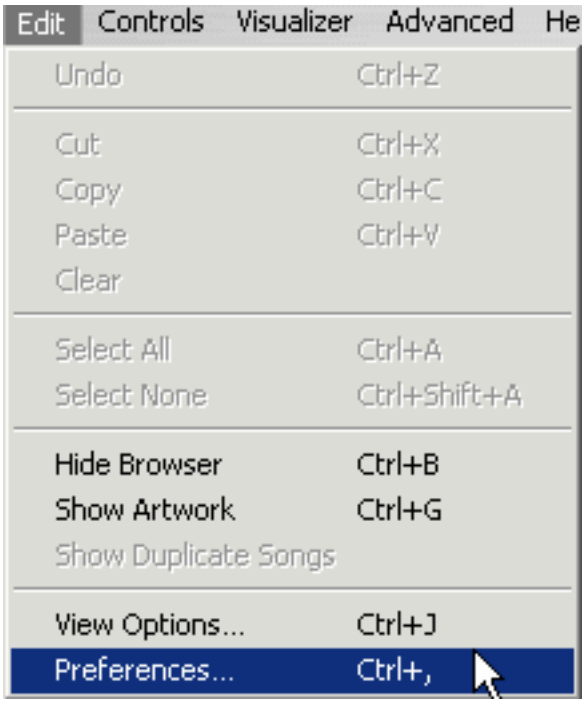
iTunes allows music files to reside on different volumes or hard drives, including network volumes. Since FireBall's CONTENT volume is really just another network volume to the PC OS, you can add your FireBall music to iTunes.

iTunes creates and maintains it's own Library index files which are separate from the actual music files that appear in it's browser window. This means that the ***iTunes Music Library*** file can remain on your hard drive (usually located in your Music folder) while the actual music files are located on some other volume, like the FireBall CONTENT volume.

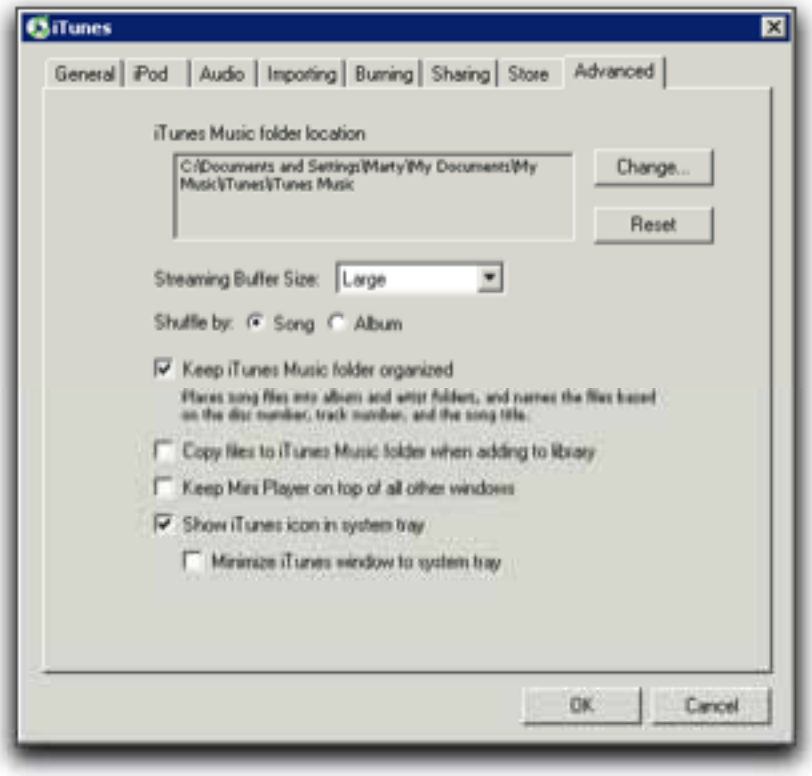
Note: Since iTunes does not currently support FLAC files, only MP3 files from FireBall can be used with iTunes.

Follow these steps to import your FireBall music content into iTunes:

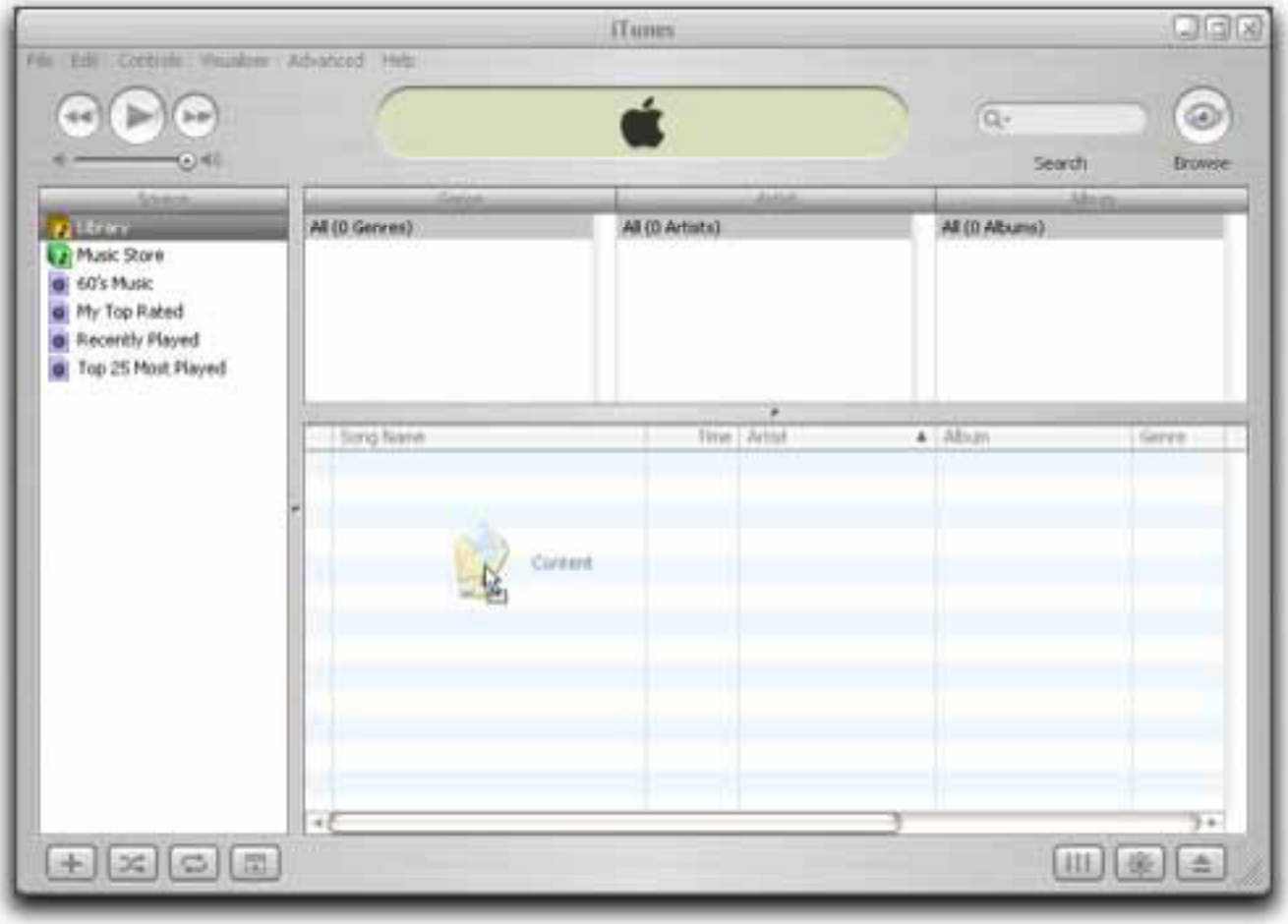
1. After mounting your FireBall's CONTENT volume (see above), open iTunes on your PC.
2. Select **Preferences…** from the iTunes menu



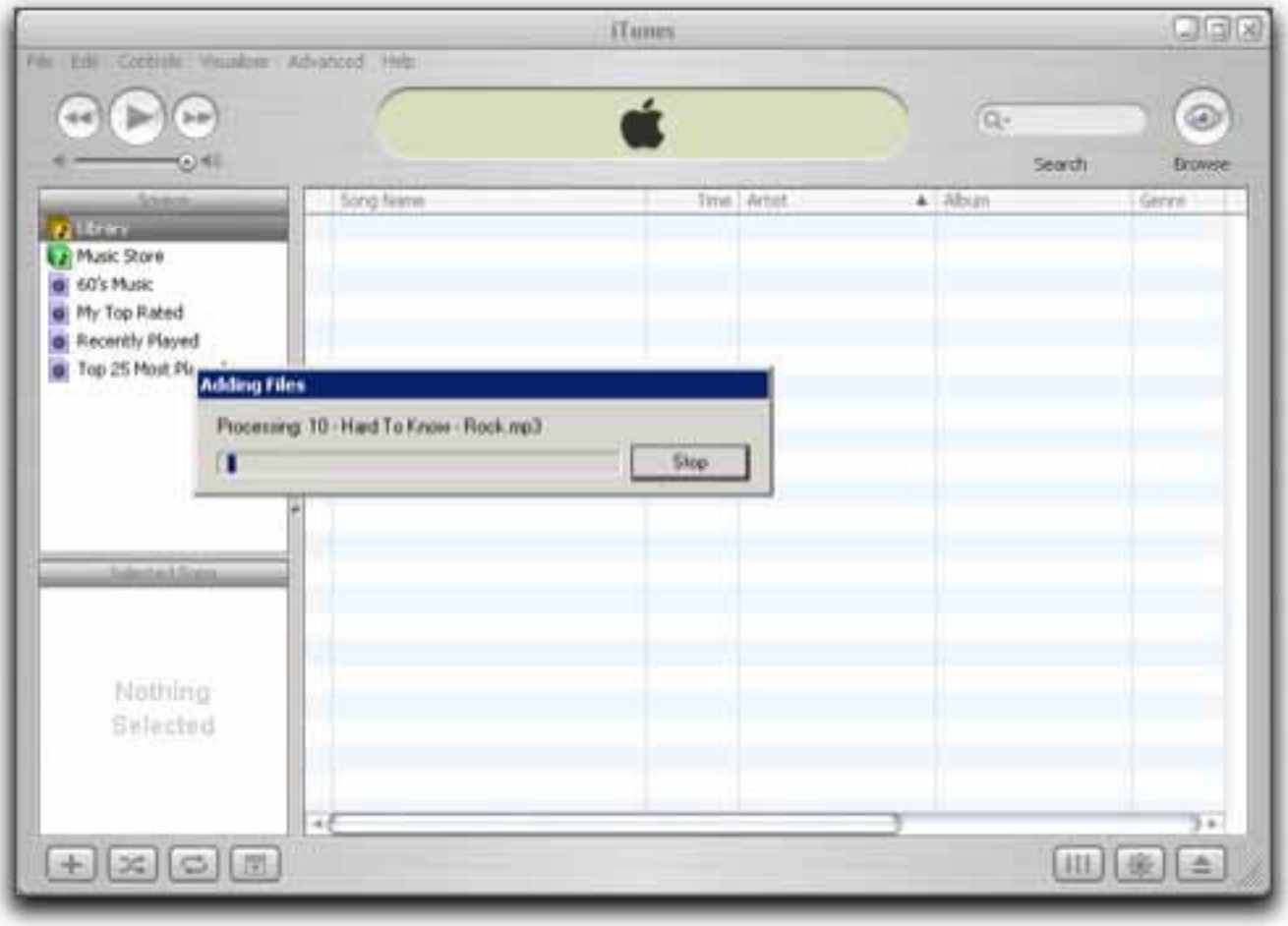
3. Click the Advanced icon in the toolbar to display the **Advanced** Preferences panel.
4. Make sure that **Copy files to iTunes Music folder when adding to library** is **NOT checked**. If it is checked, all music files imported into iTunes will be copied into your hard drive as they are imported. We don't want to do this, because we simply want to access the music from FireBall, not duplicate it on the PC.



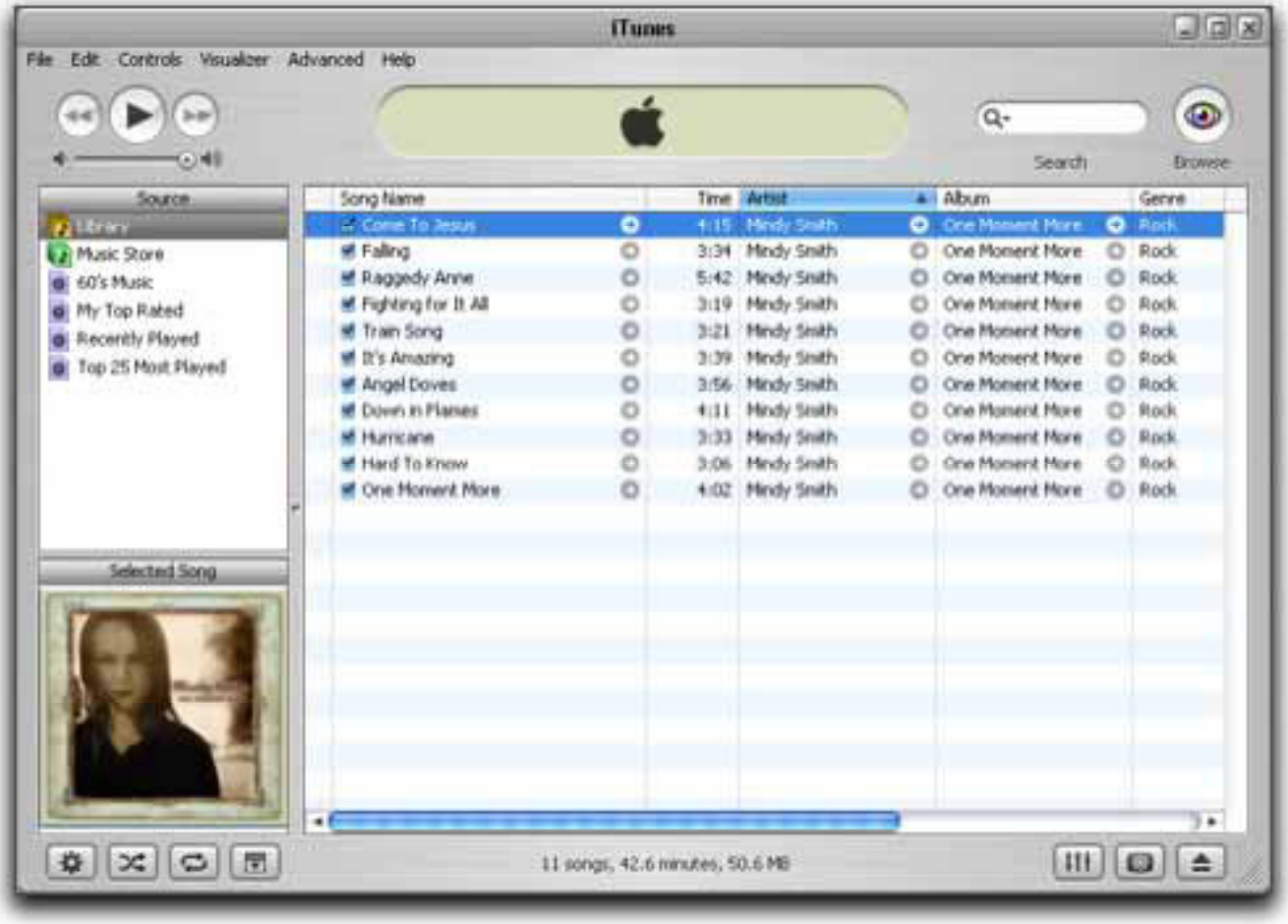
5. Drag and drop the CONTENT volume from your PC Desktop to the iTunes browser window.



6. Wait while iTunes scans the CONTENT volume for valid MP3 files and adds them to the iTunes Library.



7. When all your MP3 files have been imported, the iTunes browser window will display the music content from your FireBall, including cover art!


iTunes
File Edit Controls Visualizer Advanced Help
Search
Browse
Source
Library
Music Store
60's Music
My Top Rated
Recently Played
Top 25 Most Played
Selected Song
Song Name
Time
Artist
Album
Genre
Come To Jesus 4:15 Mindy Smith One Moment More Rock
Falling 3:34 Mindy Smith One Moment More Rock
Raggedy Anne 5:42 Mindy Smith One Moment More Rock
Fighting for It All 3:19 Mindy Smith One Moment More Rock
Train Song 3:21 Mindy Smith One Moment More Rock
It's Amazing 3:39 Mindy Smith One Moment More Rock
Angel Doves 3:56 Mindy Smith One Moment More Rock
Down in Flames 4:11 Mindy Smith One Moment More Rock
Hurricane 3:33 Mindy Smith One Moment More Rock
Hard To Know 3:06 Mindy Smith One Moment More Rock
One Moment More 4:02 Mindy Smith One Moment More Rock
11 songs, 42.6 minutes, 50.6 MB

You can now access your FireBall music from iTunes just as if it were located on your PC.

Creating iTunes Playlists

Now that your FireBall music has been added to the iTunes Library, you can create iTunes Playlists. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and play FireBall music.

Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Note: iTunes actually streams each MP3 from FireBall in real-time over your network. This may limit the number of simultaneous client streams that your FireBall server can play at once.

Burn CDs from iTunes

Again, since your FireBall music has been added to the iTunes Library, you can burn CDs directly from iTunes Playlists on your PC. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and burn CDs that contain music which is physically located on your FireBall music server.

In iTunes, you burn a CD from a Playlist. Create a Playlist in iTunes with the songs you want on your CD, then click the Burn icon in the upper right corner of the screen. Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Sync Playlists and Music to your iPod

Once again, since your FireBall music has been added to the iTunes Library, you can also sync iTunes Playlists to your iPod. Your iPod can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and sync MP3 music which is physically located on your FireBall music server.

Please refer to the iTunes Help screens for more detailed information about syncing music to an iPod using iTunes.

Note: Remember that iTunes does not support FLAC files, so only FireBall MP3 files can be synced to an iPod.

ID3 Tags and the PC

What is an ID3 Tag?

When MP3s became popular in late 1996, people started wondering if there would be a solution for the lack of information in audio tracks stored in MP3 format. Basically the problem was that even most advanced rippers who distributed audio tracks in MP3 format, included the information about album, track name, etc inside the filename. Since some people then renamed the files as something else that didn't provide the same quality of information anymore, ID3 was born.

An ID3 tag is a small piece of information stored physically inside the MP3 file (in the beginning or in the end of the file, depends on ID3's version). ID3 tags (as the pieces of information that ID3s contain are called) can contain various information about the MP3, like album name, song name, artist, original artist, genre, composer, releasing year, additional comment fields, cover art etc.. Nowadays ID3s are de facto in audio world and they can be added to most of the audio formats and even to certain video formats in order to provide additional information of the file. FireBall uses ID3 tags to store information about MP3 and FLAC files which are recorded or ripped into FireBall.

FireBall's ID3 tag Requirements

FireBall supports version1.0, 1.1, 2.2, and 2.3 ID3 tags. Before you can properly import music files into FireBall, you should first convert all of your MP3 and FLAC files to use ID3 version 2.2 or 2.3 tags. There are several programs available to do this including iTunes, however since iTunes does not support FLAC files you cannot use it for editing ID3 tags embedded into FLAC files.

Apple iTunes is a PC program that can edit ID3 tags embedded into MP3 files. Follow these steps to convert your MP3 files to use ID3v2.3 tags BEFORE importing them to your FireBall.

1. Select the **Library** in the iTunes Source list.
2. Type **Ctrl+A** to select all of the Songs in your Library.

3. Select **Convert ID3 Tags…** from the Advanced menu.

4. When the **Convert ID3 Tags** dialog is displayed, select **v2.3** from the drop down menu, then select OK.

5. The ID3 tags within all of the selected songs will be converted to v2.3 and thus compatible with the FireBall.

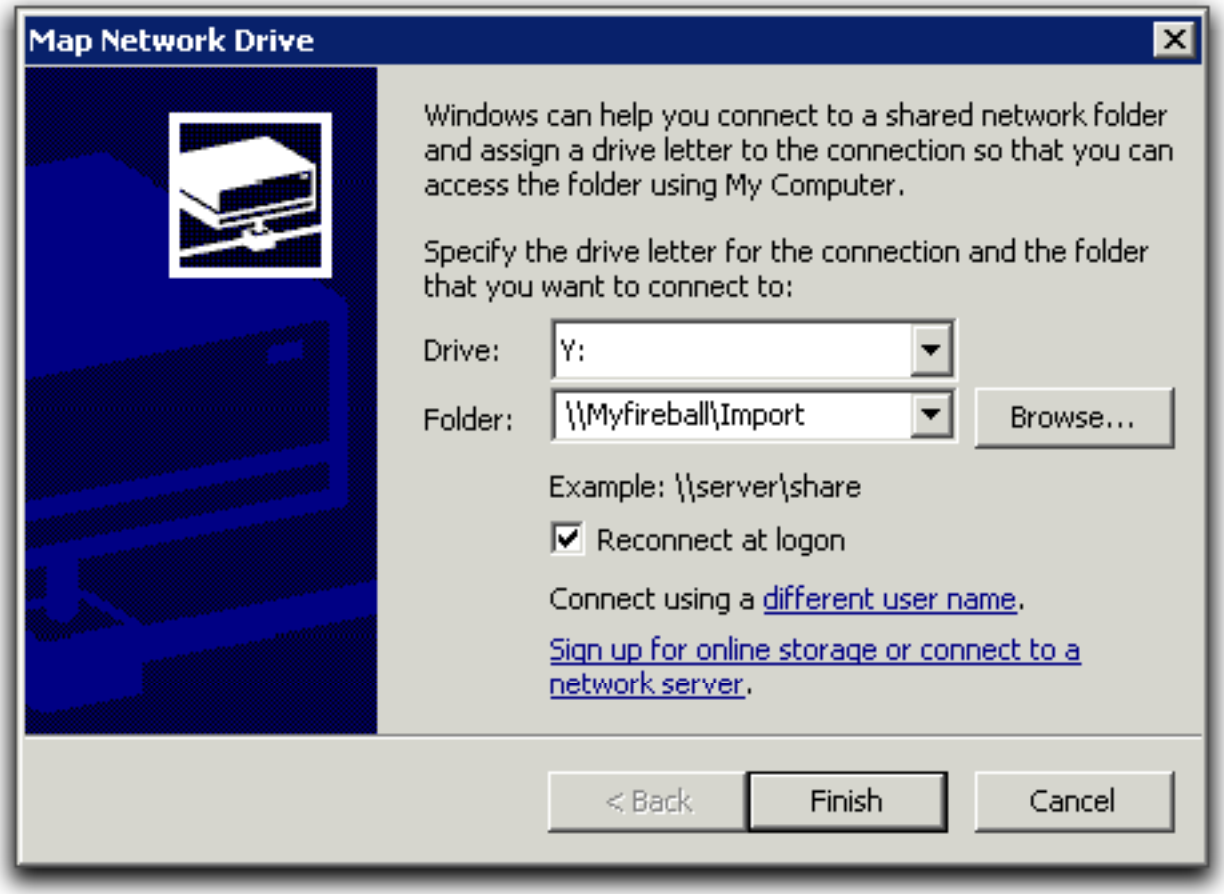
Note: Because the CONTENT volume is a read-only volume, you cannot edit anything. You must first copy any files you want to edit onto your PC and then import them back into your FireBall, replacing the originals. Please see the section ***Importing Music Into FireBall*** for instructions on how to get your music files into your FireBall using the IMPORT volume.

Importing Music Into FireBall

FireBall's **CONTENT** volume is read-only, which means you can't write to it or use it for importing music files from your PC to your FireBall. There is a way! FireBall actually provides two server volumes, one for reading your music collection and one for importing your music collection. The difference is that the **IMPORT** volume is a writeable volume while the CONTENT volume is read only.

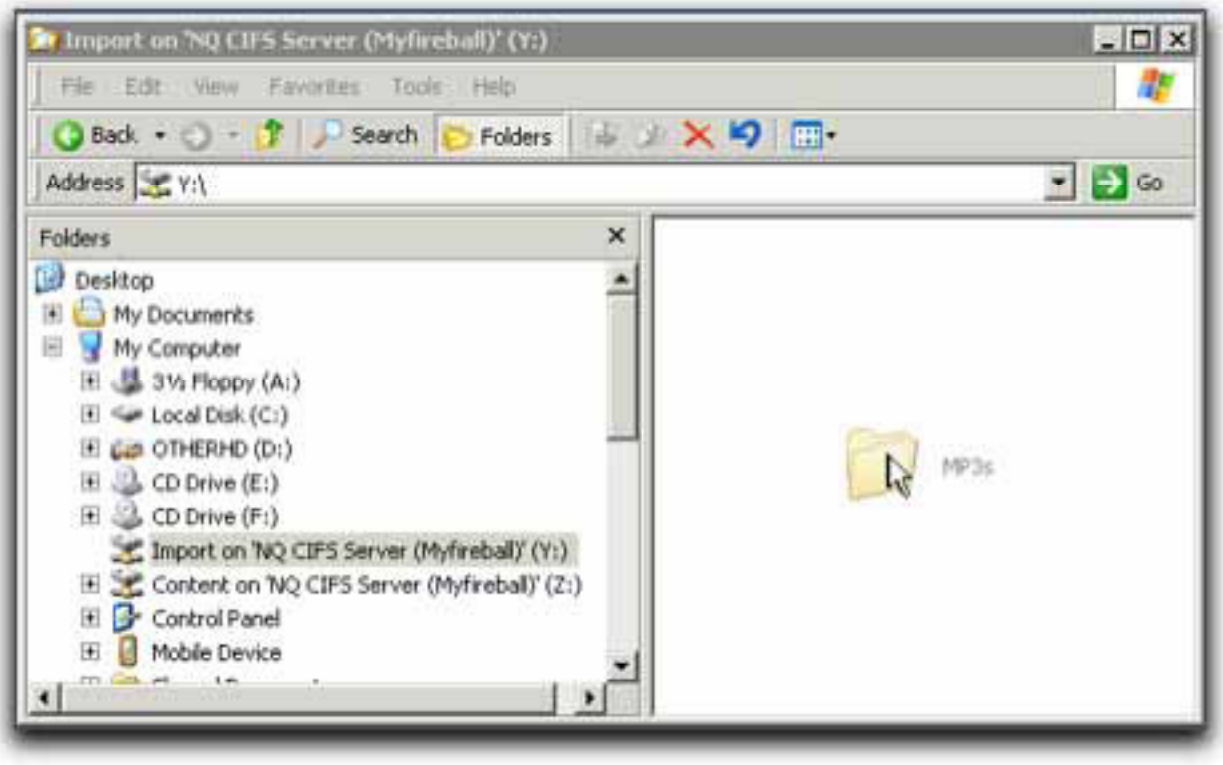
Mounting the IMPORT Volume

Mount your FireBall's **IMPORT** volume by right clicking on "My Computer" and selecting "Map Network Drive". Choose an available drive letter, then type in the name of your FireBall. Example: suppose you named your FireBall "MyFireBall" in the Server Settings screen, you would then enter **\\MyFireBall\Import** in the Folder name, and click Finish.

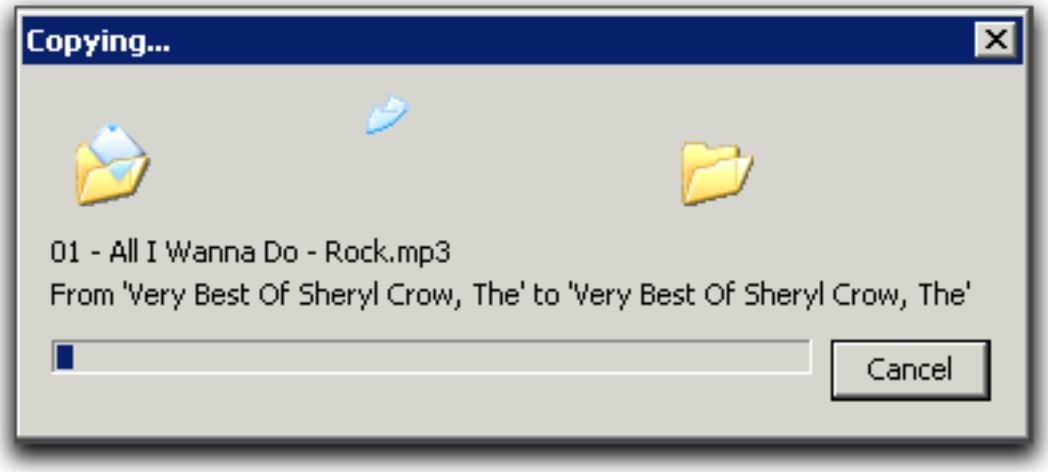

Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Y:
Folder:
\\Myfireball\Import
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

Importing your Music Files

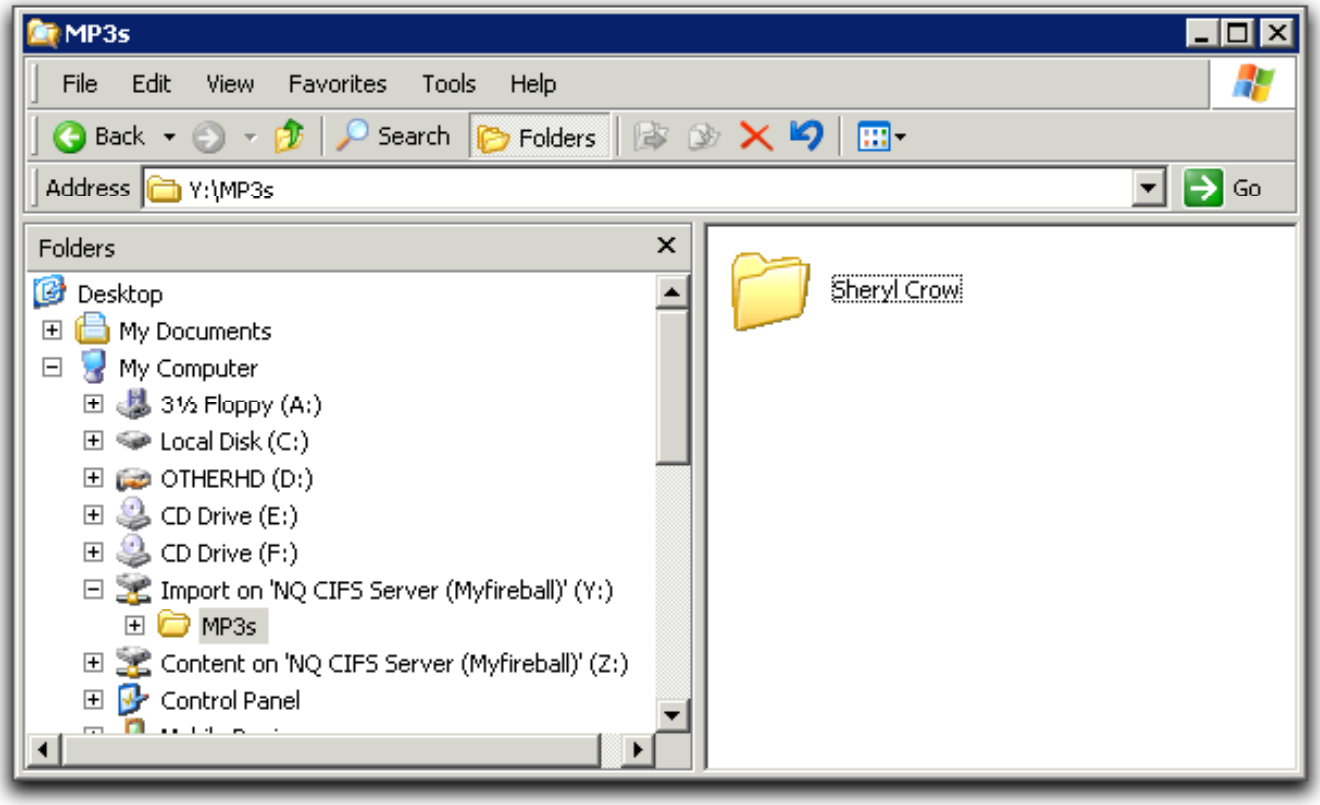
Once the IMPORT volume is mapped as a new drive, simply drag and drop any MP3 or FLAC audio file into the IMPORT volume and the files will be copied to FireBall and added to the FireBall Music Library. You can drag and drop whole collections, a folder of songs, or just a single song.



When the music files are copied to the FireBall, you will see the new songs appear on your FireBall's Music Guide, under the" artist – album name" as defined in the file's ID3 tag.



Note: The IMPORT directory may contain special “cache files” in it if you have previously imported music into your FireBall. These files are just temporary cache files that appear to be the original music files, however they are not. They are just temporary “stub” files that indicate what you previously imported into your FireBall. You can delete these files without actually deleting the originals which physically reside on the CONTENT volume.



The IMPORT volume displaying the temporary cache files for an imported artist folder.

Importing iTunes Music Store Files

Music files that you purchase from the iTunes Music Store are AAC (Advanced Audio Coding) files protected with DRM or Digital Rights Management software. This means that you can not freely copy these songs from one place to another like you can copy songs that you rip yourself. FireBall can not play AAC files (.m4a files) nor protected AAC files (.m4p files) like those purchased from the iTunes Music Store, however there is a way to convert these files for import into your FireBall.

Importing Whole iTunes Music Store Albums

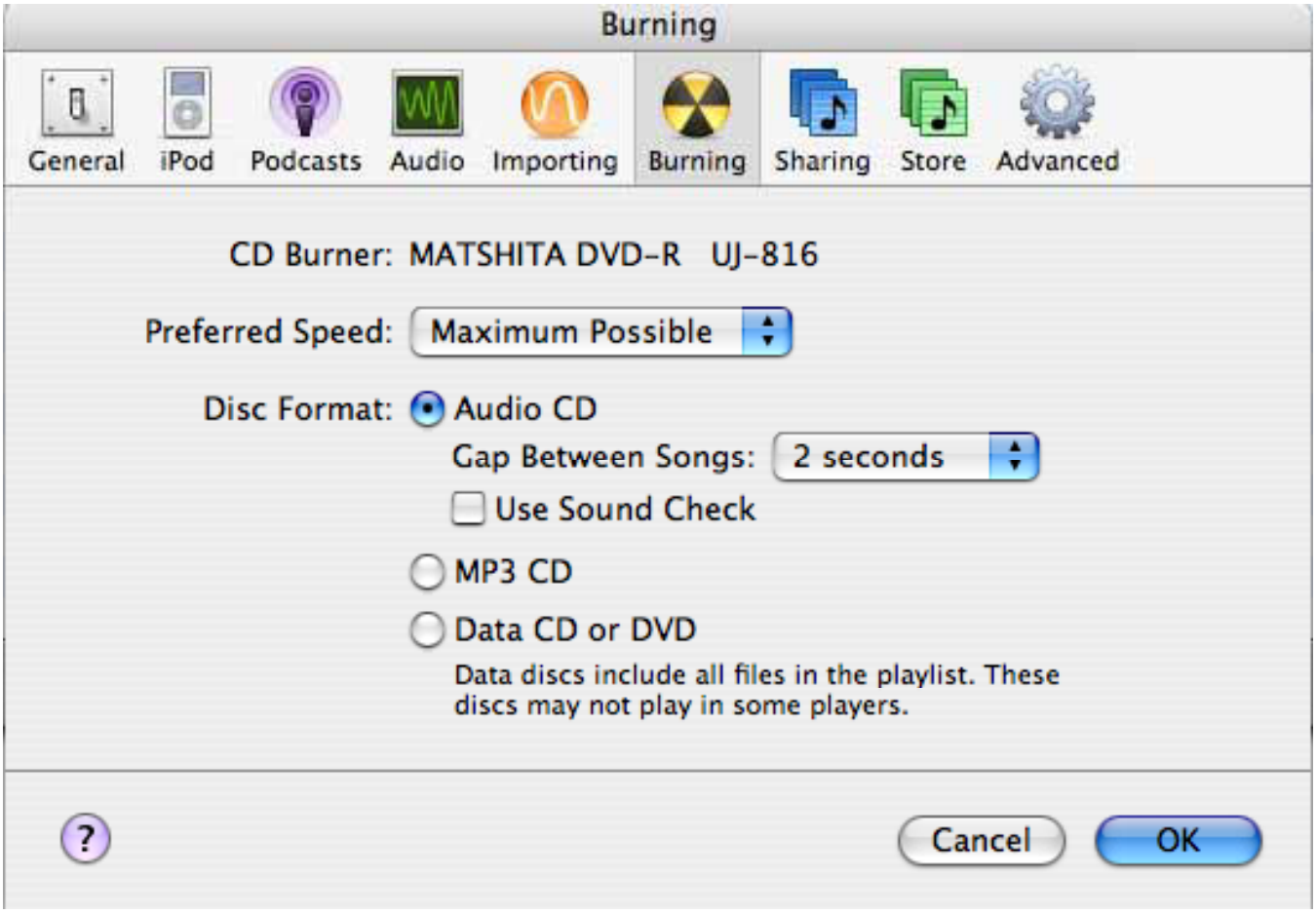
Apple allows you to make 7 legal CD burns or copies of any album downloaded from the iTunes Music Store.

Follow these instructions for importing protected AAC or iTunes Music Store albums into your FireBall.

1. Purchase an Album from the iTunes Music Store.

2. Create a New Playlist in iTunes and add the purchased songs to the Playlist in the correct order.

3. Select Preferences… from the iTunes Menu and select the Burning preferences panel.



4. Specify the Disc Format as **Audio CD** with 2 second gaps and select the OK button.
5. Select the Playlist name in the Source panel and press the Burn Disc button.

6. Remove the new CD from your Mac and insert it into your FireBall.
7. You can now use the new CD just as if you purchased it from a store. Look it up using the Gracenote CDDB and rip it into your FireBall.

Importing Single iTunes Music Store Songs

Individual songs purchased from the iTunes Music Store can be imported using the same method described above, however no cover art or metadata about the track will be imported. This is due to the fact that metadata is not burned onto an Audio CD, there are no ID3 tags per-se. Because the Audio CD is a compellation of songs, FireBall and the Gracenote CDDB have no idea what the original artist-album-song data really is. After importing individual songs, you will have to manually edit the data for each song.

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FireBall to Mac Networking Basics

Overview

With the new Network File Sharing feature built into FireBall, you can now access your FireBall from your Mac using your home network. Having access to your FireBall allows you to do things like backup your music files, import music files from your Mac to your FireBall, remotely control your FireBall from your Mac, and share your FireBall based music with iTunes and the Apple iPod. This document will explain how to do all of these things using your Mac and your FireBall over your home network.

Requirements

In order to connect to your FireBall, you will need to have your FireBall and Mac on the same network. This document assumes that you already have a home network correctly setup and configured. If you need help setting up your network, please review the “Home Network Primer” available on the Escient web site, or contact your Escient dealer.

The following items are required for connecting your Mac to your FireBall:

- Properly configured Ethernet home network
- Fireball E2 Music Manager, DVDM-300, or FireBall E upgraded to E2 software
- Mac OS X computer with 64MB of ram and Mac OS X 10.3.5 or later
- iTunes 4.5 or later

Connecting to Your FireBall

FireBall uses a type of file server commonly called “Windows Networking” or “CIFS/SMB”. CIFS/SMB networking is found in most Microsoft operating systems and allows PCs to connect and then share files over a network. Mac OS X has a built-in Windows Networking client for CIFS/SMB and thus allows the Mac to connect to any CIFS/SMB server on the local network.

Setting up the FireBall Server

Before you can connect to your FireBall from your Mac, you must configure FireBall’s server settings. Follow these steps to configure your FireBall server:

1. Using your FireBall remote, press **SETUP** to display the Setup Menu.
2. Select the **NETWORK** menu item.
3. Select the **SERVER SETTINGS** menu item to display the Server Settings screen.
4. Enter a name for your FireBall using the remote or keyboard. Do not use spaces in the name.
5. Select the **SAVE** button to save your settings.
6. Press **SETUP** again to exit the Setup menus.

SERVER SETTINGS
Enter a name for your FireBall server. This is the name you will see when seleting a server from FireBall-MP players, wireless web pads and web browsers.
FireBall name:
MyFireBall
Enter a password to limit access to FireBall's built-in web server or leave it blank if you do not want to use a password. There is no 'user name' when connecting to a FireBall server using a web browser.
Web Password:
help
cancel
save

Server Settings screen

Connecting to the FireBall Server

Once you have setup the FireBall server, you can now connect to it from your Mac. Follow these steps to connect to your FireBall from your Mac OS X computer:

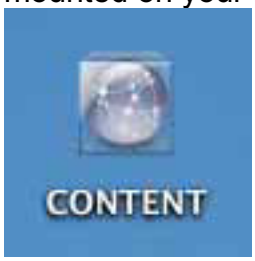
1. Go to the Finder and select **Connect to Server…** from the Go Menu.

2. Enter “smb://” (without the quotes) and the name of your FireBall server into the Server Address field in the Connect to Server dialog. Example: smb://MyFireBall

3. Select the **Connect** button and wait for the Mac to locate your FireBall on the Network. When your FireBall is located, the SMB Mount dialog will appear.

4. Select **OK** to select the default volume called “Content”.
5. Depending on your network configuration, the SMB/CIFS Filesystem Authentication dialog might be displayed. If it is, just click the **OK** button. There are no usernames or passwords to enter for connecting to your FireBall server.

6. The Content volume, which contains all of your FireBall's music content, will be mounted on your Mac's Desktop.



The Content volume is mounted as a Read-Only volume in order to minimize the chances of accidentally deleting music from your FireBall.

Integrating with iTunes and iPod

FireBall supports iTunes and iPod integration through the FireBall Network File Sharing feature described above. Once your Mac is connected to your FireBall over the network, you can access FireBall's music and use it from iTunes and sync it with your iPod.

Please read the section ***Connecting to your FireBall*** before proceeding to make sure that you can mount FireBall's CONTENT volume on your Mac Desktop.

What You Can Do

Once FireBall's is mounted on your Mac Desktop, you can:

- Import FireBall MP3 music into iTunes
- Create iTunes Playlists
- Burn CDs using iTunes
- Sync Playlists and Music to your Apple iPod

What You Can't Do

Here are some things you **can't** do with iTunes:

- Copy Music from an iPod to FireBall
- Copy iTunes Playlists to your FireBall
- Import FLAC files

Importing Music Into iTunes

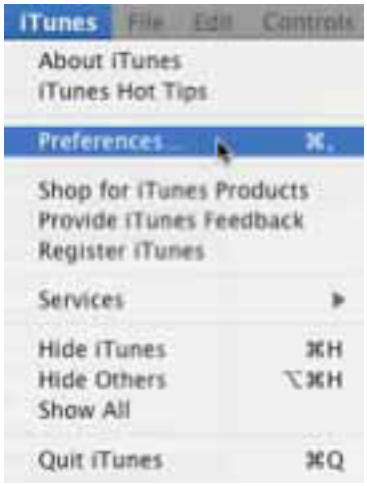
iTunes allows music files to reside on different volumes or hard drives, including network volumes. Since FireBall's CONTENT volume is really just another network volume to the Mac, you can add your FireBall music to iTunes.

iTunes creates and maintains it's own Library index files which are separate from the actual music files that appear in it's browser window. This means that the ***iTunes Music Library*** file can remain on your hard drive (usually located in your Music folder) while the actual music files are located on some other volume, like the FireBall CONTENT volume.

Note: Since iTunes does not currently support FLAC files, only MP3 files from FireBall can be used with iTunes.

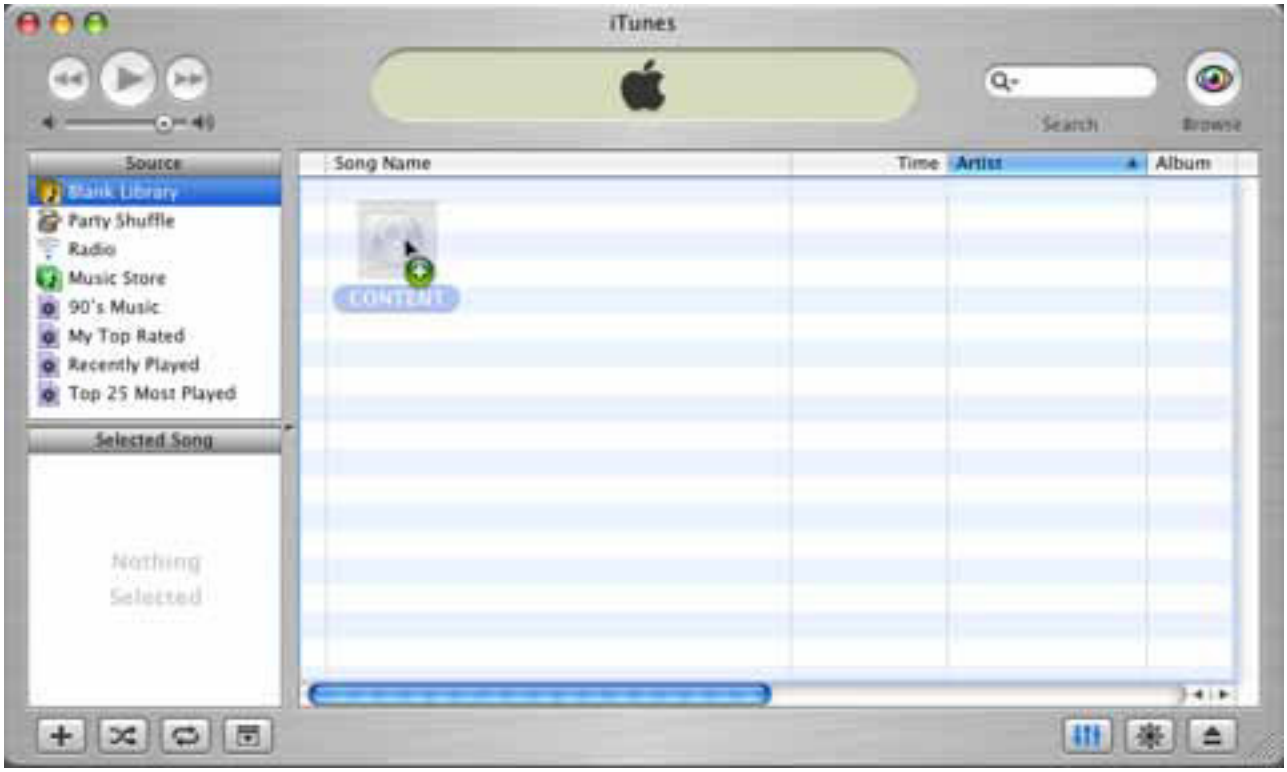
Follow these steps to import your FireBall music content into iTunes:

1. After mounting your FireBall's CONTENT volume (see above), open iTunes on your Mac.
2. Select **Preferences…** from the iTunes menu



3. Click the Advanced icon in the toolbar to display the **Advanced** Preferences panel.
4. Make sure that **Copy files to iTunes Music folder when adding to library** is **NOT checked**. If it is checked, all music files imported into iTunes will be copied into your hard drive as they are imported. We don't want to do this, because we simply want to access the music from FireBall, not duplicate it on the Mac.

5. Drag and drop the CONTENT volume from your Mac Desktop to the iTunes browser window.



6. Wait while iTunes scans the CONTENT volume for valid MP3 files and adds them to the iTunes Library.

7. When all your MP3 files have been imported, the iTunes browser window will display the music content from your FireBall, including cover art!

iTunes
Search
Browse
Source
Blank Library
Party Shuffle
Radio
Music Store
90's Music
My Top Rated
Recently Played
Top 25 Most Played
Selected Song
Song Name
Time
Artist
Album
I Need To Be In Love 3:50 Carpenters, The Love Son
So This is Christmas 3:35 John Lennon The John
Come To Jesus 4:15 Mindy Smith One Mom
Falling 3:14 Mindy Smith One Mom
Raggedy Anne 5:42 Mindy Smith One Mom
Fighting for It All 3:19 Mindy Smith One Mom
Train Song 3:21 Mindy Smith One Mom
It's Amazing 3:39 Mindy Smith One Mom
Angel Doves 3:56 Mindy Smith One Mom
Down in Flames 4:11 Mindy Smith One Mom
Hurricane 3:33 Mindy Smith One Mom
Hard To Know 3:06 Mindy Smith One Mom
One Moment More 4:02 Mindy Smith One Mom
All I Wanna Do 4:33 Sheryl Crow Very Best
Soak Up The Sun 4:52 Sheryl Crow Very Best
My Favorite Mistake 4:06 Sheryl Crow Very Best
First Cut Is The Deepest 3:47 Sheryl Crow Very Best
Everyday Is A Winding Road 4:17 Sheryl Crow Very Best
42 songs, 3.4 hours, 236.9 MB

You can now access your FireBall music from iTunes just as if it were located on your Mac.

Creating iTunes Playlists

Now that your FireBall music has been added to the iTunes Library, you can create iTunes Playlists. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and play FireBall music.

Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Note: iTunes actually streams each MP3 from FireBall in real-time over your network. This may limit the number of simultaneous client streams that your FireBall server can play at once.

Burn CDs from iTunes

Again, since your FireBall music has been added to the iTunes Library, you can burn CDs directly from iTunes Playlists on your Mac. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to

remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and burn CDs that contain music which is physically located on your FireBall music server.

In iTunes, you burn a CD from a Playlist. Create a Playlist in iTunes with the songs you want on your CD, then click the Burn icon in the upper right corner of the screen. Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Sync Playlists and Music to your iPod

Once again, since your FireBall music has been added to the iTunes Library, you can also sync iTunes Playlists to your iPod. Your iPod can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and sync MP3 music which is physically located on your FireBall music server.

Please refer to the iTunes Help screens for more detailed information about syncing music to an iPod using iTunes.

Note: Remember that iTunes does not support FLAC files, so only FireBall MP3 files can be synced to an iPod.

ID3 Tags and the Mac

What is an ID3 Tag?

When MP3s became popular in late 1996, people started wondering if there would be a solution for the lack of information in audio tracks stored in MP3 format. Basically the problem was that even most advanced rippers who distributed audio tracks in MP3 format, included the information about album, track name, etc inside the filename. Since some people then renamed the files as something else that didn't provide the same quality of information anymore, ID3 was born.

An ID3 tag is a small piece of information stored physically inside the MP3 file (in the beginning or in the end of the file, depends on ID3's version). ID3 tags (as the pieces of information that ID3s contain are called) can contain various information about the MP3, like album name, song name, artist, original artist, genre, composer, releasing year, additional comment fields, cover art etc.. Nowadays ID3s are de facto in audio world and they can be added to most of the audio formats and even to certain video formats in order to provide additional information of the file. FireBall uses ID3 tags to store information about MP3 and FLAC files which are recorded or ripped into FireBall.

FireBall's ID3 tag Requirements

FireBall supports version1.0, 1.1, 2.2, and 2.3 ID3 tags. Before you can properly import music files into FireBall, you should first convert all of your MP3 and FLAC files to use ID3 version 2.2 or 2.3 tags. There are several programs available to do this including iTunes, however since iTunes does not support FLAC files you cannot use it for editing ID3 tags embedded into FLAC files.

Media Rage is a Mac OSX program that can edit ID3 tags embedded into MP3 and FLAC files. Escient recommends that you use this software for editing ID3 tags in your FLAC files. Please visit the Chaotic Software web site to download a trial copy of this great software.

http://www.chaoticsoftware.com/ProductPages/MediaRage.html

Media Rage ID3 Editor

Note: Because the CONTENT volume is a read-only volume, you cannot edit anything. You must first copy any files you want to edit onto your Mac and then import them back into your FireBall, replacing the originals. Please see the section ***Importing Music Into FireBall*** for instructions on how to get your music files into your FireBall using the IMPORT volume.

Importing Music Into FireBall

FireBall's CONTENT volume is read-only, which means you can't write to it or use it for importing music files from your Mac to your FireBall. There is a way! FireBall actually provides two server volumes, one for reading your music collection and one for importing your music collection. The difference is that the IMPORT volume is a writeable volume while the CONTENT volume is read only.

Connecting to the FireBall Server

Follow these steps to connect to your FireBall from your Mac OS X computer:

1. Go to the Finder and select **Connect to Server…** from the Go Menu.

2. Enter "smb://" (without the quotes) and the name of your FireBall server into the Server Address field in the Connect to Server dialog. Example: smb://MyFireBall

3. Select the **Connect** button and wait for the Mac to locate your FireBall on the Network. When your FireBall is located, the SMB Mount dialog will appear.

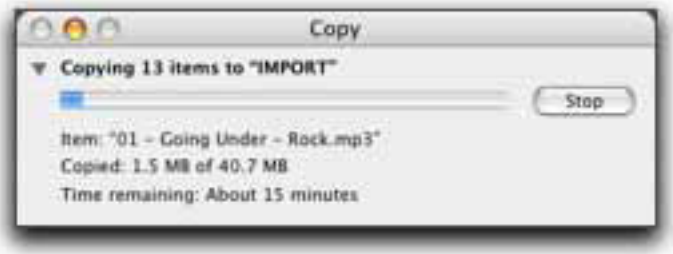
4. Select **IMPORT** from the share popup menu and click OK.
5. Depending on your network configuration, the SMB/CIFS Filesystem Authentication dialog might be displayed. If it is, just click the **OK** button. There are no usernames or passwords to enter for connecting to your FireBall server.

6. The IMPORT volume will be mounted on your Mac's Desktop.

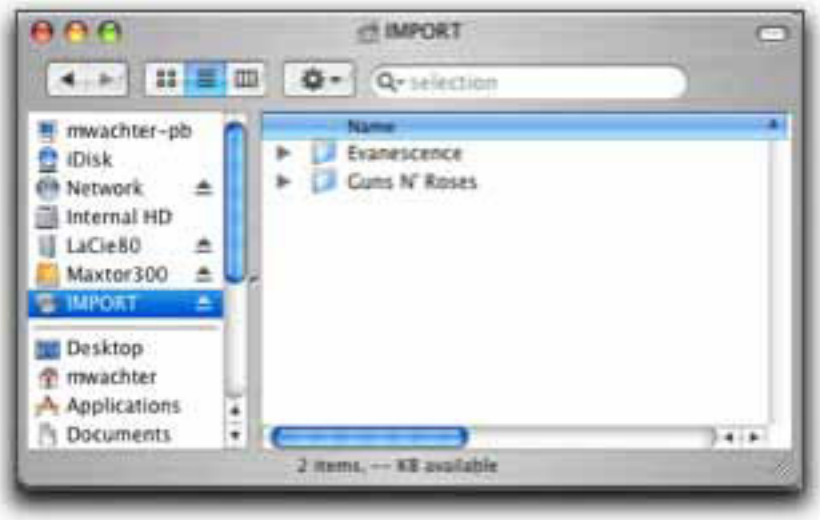
Importing your Music Files

Once the IMPORT volume is mounted on your Mac's desktop, simply drag and drop any MP3 or FLAC audio file into the IMPORT volume and the files will be copied to FireBall and added to the FireBall Music Library. You can drag and drop whole collections, a folder of songs, or just a single song.

When the music files are copied to the FireBall, you will see the new songs appear on your FireBall's Music Guide, under the" artist – album name" as defined in the file's ID3 tag.



Note: The IMPORT directory may contain special "cache files" in it if you have previously imported music into your FireBall. These files are just temporary cache files that appear to be the original music files, however they are not. They are just temporary "stub" files that indicate what you previously imported into your FireBall. You can delete these files without actually deleting the originals which physically reside on the CONTENT volume.



The IMPORT volume displaying the temporary cache files for an imported artist folder

Importing iTunes Music Store Files

Music files that you purchase from the iTunes Music Store are AAC (Advanced Audio Coding) files protected with DRM or Digital Rights Management software. This means that you can not freely copy these songs from one place to another like you can copy songs that you rip yourself. FireBall can not play AAC files (.m4a files) nor protected AAC files (.m4p files) like those purchased from the iTunes Music Store, however there is a way to convert these files for import into your FireBall.

Importing Whole iTunes Music Store Albums

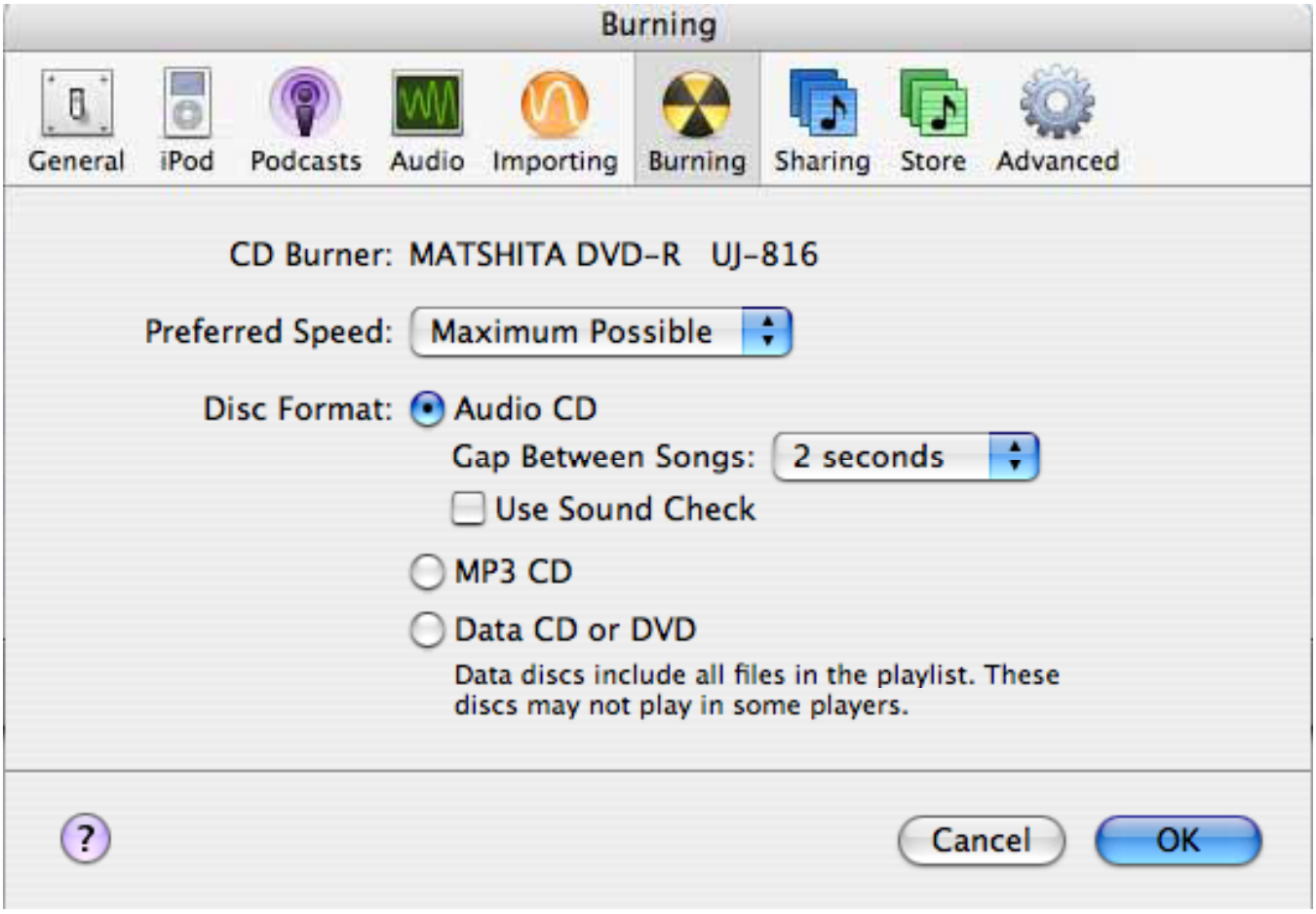
Apple allows you to make 7 legal CD burns or copies of any album downloaded from the iTunes Music Store.

Follow these instructions for importing protected AAC or iTunes Music Store albums into your FireBall.

1. Purchase an Album from the iTunes Music Store.

2. Create a New Playlist in iTunes and add the purchased songs to the Playlist in the correct order.

3. Select Preferences… from the iTunes Menu and select the Burning preferences panel.

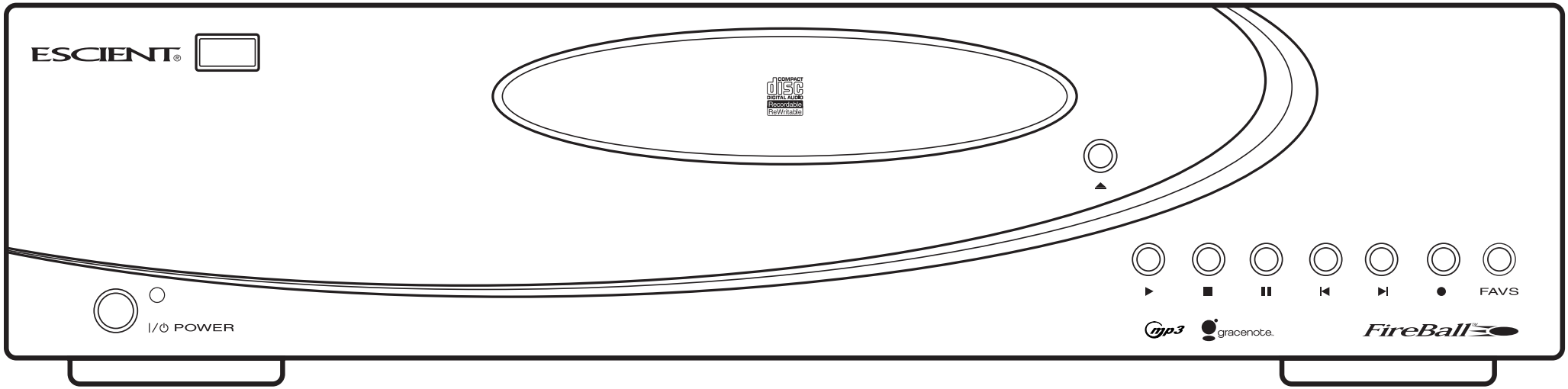


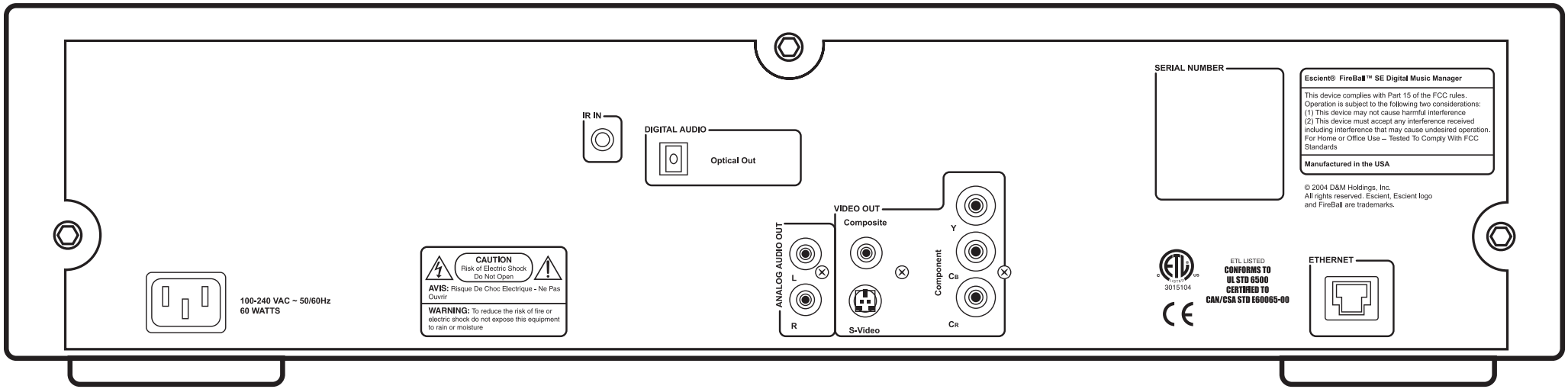
4. Specify the Disc Format as **Audio CD** with 2 second gaps and select the OK button.
5. Select the Playlist name in the Source panel and press the Burn Disc button.

6. Remove the new CD from your Mac and insert it into your FireBall.
7. You can now use the new CD just as if you purchased it from a store. Look it up using the Gracenote CDDB and rip it into your FireBall.

Importing Single iTunes Music Store Songs

Individual songs purchased from the iTunes Music Store can be imported using the same method described above, however no cover art or metadata about the track will be imported. This is due to the fact that metadata is not burned onto an Audio CD, there are no ID3 tags per-se. Because the Audio CD is a compellation of songs, FireBall and the Gracenote CDDB have no idea what the original artist-album-song data really is. After importing individual songs, you will have to manually edit the data for each song.


ESCIENT®
COMPACT disc DIGITAL AUDIO Recordable ReWritable
|/⏻ POWER
FAVS
mp3
gracenote.
FireBall™


IR IN
DIGITAL AUDIO
Optical Out
VIDEO OUT
Composite
S-Video
Component
Y
CB
CR
ANALOG AUDIO OUT
L
R
SERIAL NUMBER
Escient® FireBall™ SE Digital Music Manager
This device complies with Part 15 of the FCC rules. Operation is subject to the following two considerations:
(1) This device may not cause harmful interference
(2) This device must accept any interference received including interference that may cause undesired operation.
For Home or Office Use – Tested To Comply With FCC Standards
Manufactured in the USA
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All rights reserved. Escient, Escient logo and FireBall are trademarks.
100-240 VAC ~ 50/60Hz
60 WATTS
CAUTION
Risk of Electric Shock
Do Not Open
AVIS: Risque De Choc Electrique - Ne Pas Ouvrir
WARNING: To reduce the risk of fire or electric shock do not expose this equipment to rain or moisture
3015104
ETL LISTED
CONFORMS TO
UL STD 6500
CERTIFIED TO
CAN/CSA STD E60065-00
ETHERNET